

# BUSINESS WEEK

INDEX O.  
PAGE 22

←  
INDEX  
YEAR  
AGO

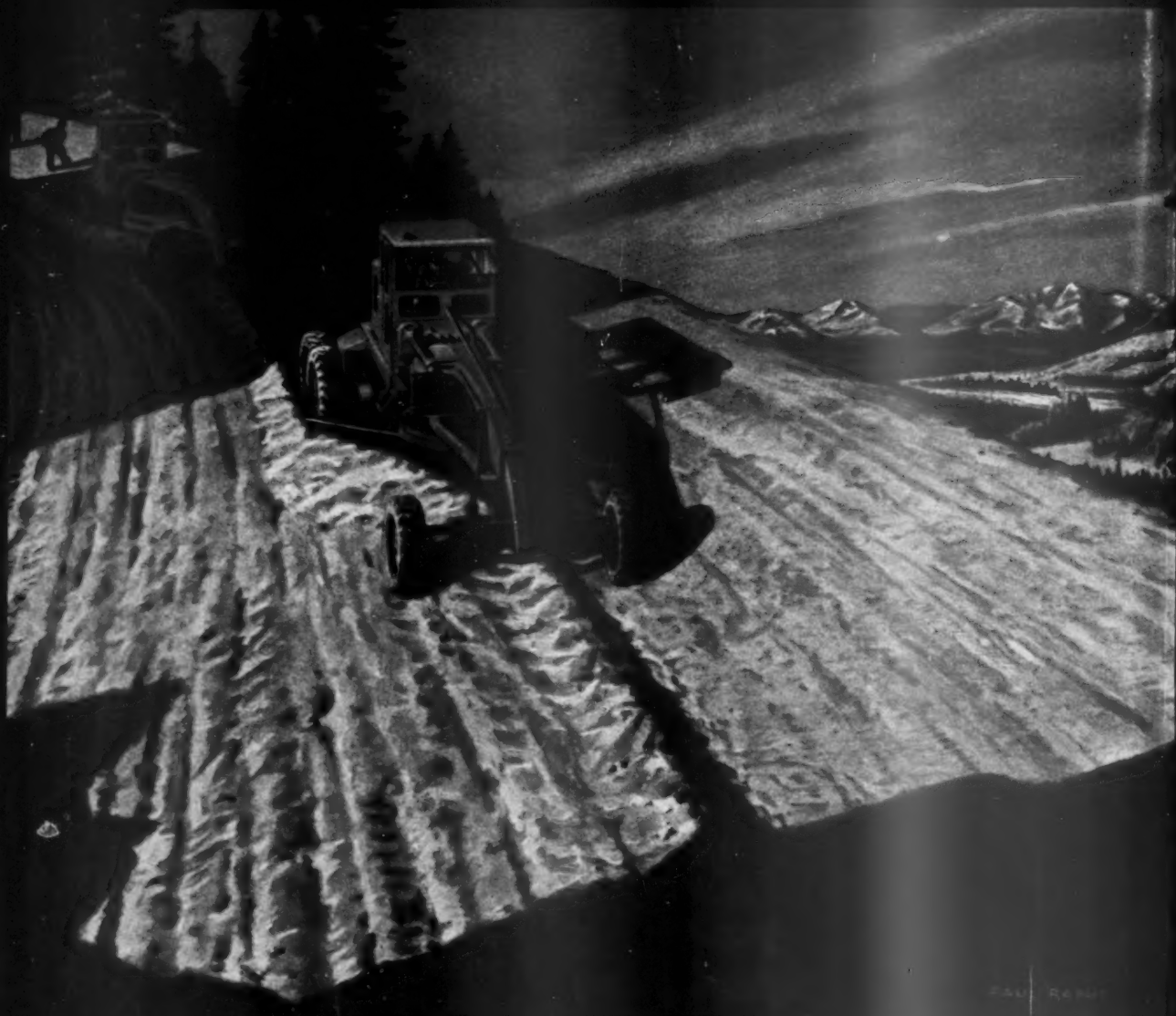


Tax collector T. Coleman Andrews: Ready to take the biggest direct mail job yet (page 62)

A MCGRAW-HILL PUBLICATION

SEPT. 11, 1954

GENERAL LIBRARY  
ACQUISITIONS DIV  
UNIV OF GA  
ATHENS GA



## ***Built-in durability cuts costly down-time!***

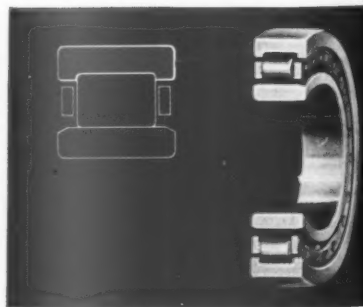
They're tough and rugged, these mighty machines—built to do in a day what used to take weeks. And to stand up under the punishing demands of day-to-day operation, equipment like this requires durable, dependable bearings—*Bower roller bearings*. ☆ Exclusive Bower design features like those shown at right, coupled with painstaking quality control, make these bearings last longer, require less maintenance, perform better. In fact, Bower bearings have thoroughly *proved* themselves, under the most rugged conditions, in virtually every make of heavy-duty equipment! ☆ Whatever your product, if it uses bearings, specify Bower! A Bower engineer can show you a complete line of tapered, straight and journal roller bearings for every field of transportation and industry.

BOWER ROLLER BEARING COMPANY • DETROIT 14, MICHIGAN



# BOWER

ROLLER BEARINGS



### **TWO-LIP RACE INCREASES RIGIDITY**

Two parallel shoulders made integral with the outer race, as shown in red above, increase rigidity and durability—keep rollers in proper alignment. Precision-ground rollers and race give quieter, smoother operation.





*"Vision is Indispensable to Progress"*

## Through glass man's magic view of progress

What glass means to modern living is plainly evident in its glint and shine and sparkle all around us... glass in building construction, in packaging and tableware, in science and communication, in medicine and industry.

The dazzling vista ranges through tens of thousands of forms — from the incredibly delicate filament of nuclear research equipment to the giant 200-inch mirror of the Mount Palomar telescope. Here is a material so versatile that it may be kneaded like dough, blown into bubbles, drawn into threads, woven into fabric, shaped like clay, rolled

and pressed and cut and engraved!

Glass has companioned the whole progress of man, yet only in the past 100 years and particularly since 1900, have we begun to appreciate and exploit its almost limitless possibilities. Today this magic material of utility, beauty, safety and efficiency is on the threshold of its greatest era of development.

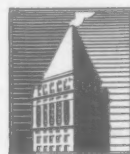
Glimpsing the future through

glass, we see continuing research, improved methods of craftsmanship and manufacture achieving amazing flexibility, sensitivity and strength. By steadily widening the frontiers of service for its products, the glass industry presents a crystal-clear example of how our system of free economy leads American enterprise to higher and higher attainment on the road of progress.

### BANKERS TRUST COMPANY

16 WALL STREET, NEW YORK 15, N. Y.

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION



RIGIDITY  
integral with the  
above, increas  
rollers in prop  
llers and race  
on.

INGS

**"PLEASE HELP ME. MY HUSBAND IS VERY ILL."**

## Out of the Night Came a Call for Help

**Quick action of alert telephone operator helps save man with heart attack**

It was about two o'clock of an August morning when the call flashed on the switchboard. A woman, in an excited voice, asked to be connected with a doctor.

Mrs. Carolyn F. Gross, the night operator, rang the doctor's home immediately but he was unavailable. Sensing a critical emergency, she asked if she could be of help in getting another doctor.

"Oh, please do everything you can," implored the caller. "My hus-



**AWARDED VAIL MEDAL.** Mrs. Carolyn F. Gross, night operator in Berlin, N. J. Awarded Vail Medal for "initiative and resourcefulness" in answering an emergency call. Vail Medals, accompanied by cash awards, are given annually by the Bell System for acts of noteworthy public service by telephone employees throughout the country.

band has had a heart attack and is very ill."

Mrs. Gross rang a doctor who had helped in a previous emergency. Then, realizing he was new in the area, she arranged to have the State Police meet him at a certain point and lead him to the house.

Shortly after, the subscriber's daughter called to ask for oxygen.

"It's on the way," said Mrs. Gross.

"I thought you might need it so I telephoned the emergency ambulance service. They ought to be there any minute."

Just before she went off duty, Mrs. Gross called to ask how the sick man was doing and if there was anything else she could do.

"You've already done so much," said a grateful voice. "The doctor says that it's only because of your help that my husband is alive."



**POLICE ESCORT.** To help the doctor get there faster, the operator arranged for the State Police to escort him to the sick man's home.

**EVER READY . . . EVER HELPFUL.** Day or night, rain or shine, the telephone stands ready to help you—in the everyday affairs of life as well as emergencies. This swift, willing worker will run your errands, guard your home, save countless steps and valuable time and keep you in touch with relatives and friends. In office and home, these oft-repeated words reveal its value—"I don't know what I'd do without the telephone."

**BELL TELEPHONE SYSTEM**



**EDITOR & PUBLISHER** Elliott V. Bell

**MANAGING EDITOR** Edgar A. Grunwald

**EXECUTIVE EDITOR** Kenneth Kramer

**ASSISTANT MANAGING EDITOR** Robert B. Colborn

**ASSOCIATE MANAGING EDITOR** John L. Cobbs

**ASSOCIATE MANAGING EDITOR** Peter French

## DEPARTMENTS

**Business Outlook:** Clark R. Pace, *Editor*; Robert H. Persons, Jr.  
**Commodities:** Gertrude Charloff, *Editor*  
**Finance:** William McKee Gillingham, *Editor*; Paul D. Gesner, David B. Carlson  
**Foreign:** Howard Whidden, *Editor*; Paul R. Miller, Jr., John R. Thomas  
**Industrial Production:** Charles M. Garvey, *Editor*; George J. Gray, Jr., David C. Allison  
**Labor:** Merlyn S. Pitzele, *Editor*; Edward T. Townsend  
**Management:** Richard L. Waddell, *Editor*; Richard M. Wight  
**Marketing:** Carl Rieser, *Editor*; Cora Caster  
**Personal Business:** Guy Shiplet, Jr., *Editor*; Ann Masse  
**Regions:** Richard M. Machol, *Editor*  
**Research:** John K. Fockler, *Editor*  
**Illustration:** Harry Jensen, Kate McSweeney, *Editors*; Robert Isear (*Pictures-Photography*), Bernard R. Clorman, Herbert F. Kratovil, Jomary Mosley, Arthur Richter  
**Special Projects:** Frank J. Fogarty  
**Statistics:** Elsa Denno  
**The Trend:** M. J. Rossant  
**Library:** Dorothy Roantree, *Librarian*; Emily Cherry, Ruth Callanan  
**Assistant to the Editor & Publisher:** John F. Hartshorne

## NEWS EDITORS

T. B. Crane (*Senior News Editor*), Robert F. Deed, D. A. Drennen, Maxwell D. Gunther, Lawrence H. Odell, Doris I. White

## EDITORIAL ASSISTANTS

Mary T. Beckerle, Edward J. Burgess, Jr., Mary M. Burgess, Mary T. Cleary, Jean Drummond, Barbara Kleban, Alice Marks

## ECONOMICS STAFF

Dexter M. Keezer, *Director*; William H. Chartener, Peter J. Davies, Richard Everett, Douglas Greenwald, Margaret Manulis, Dora K. Merris, Robert P. Ulin

## DOMESTIC NEWS SERVICE

**Atlanta Bureau:** Wm. H. Kearns, *Manager*  
**Boston Bureau:** Paul Finney, *Manager*  
**Chicago Bureau:** James M. Sutherland, *Manager*; Mary B. Stephenson, Dorothy Miller  
**Cleveland Bureau:** Robert E. Cochran, *Manager*; Jean H. Henderson, Wm. N. Troy  
**Detroit Bureau:** William Kroger, *Manager*; Susan Tower  
**Houston Bureau:** Eugene Miller, *Manager*; Mary Schiflett  
**Los Angeles Bureau:** Thomas M. Self, *Manager*; Lorraine M. Lemmon  
**Philadelphia Bureau:** W. B. Whichard, Jr., *Manager*; Esther A. Schultz  
**Pittsburgh Bureau:** Richard N. Larkin, *Manager*  
**San Francisco Bureau:** Richard Lamb, *Manager*; Joanne O'Brien  
**Washington Bureau:** George B. Bryant, Jr., *Manager*; Glen Bayless, Alan E. Adams, Carter Field, Jay Flocken, Boyd France, Sam Justice, Craig Lewis, Donald O. Loomis, Jesse Mock, Gladys Montgomery, Arthur L. Moore, E. William Olcott, Morton A. Reichel, Caroline Robertson, John T. Skelly, Vincent Smith  
**Correspondents:** Akron, Albany, Atlanta, Austin, Baltimore, Birmingham, Boston, Buffalo, Charleston, Charlotte, Cincinnati, Columbus, Dallas, Denver, Des Moines, Duluth, Fort Worth, Greensboro, Hartford, Jacksonville, Kansas City, Knoxville, Little Rock, Memphis, Miami, Milwaukee, Minneapolis, Nashville, New Orleans, Oklahoma City, Omaha, Orono, Phoenix, Portland (Ore.), Providence, Richmond, Rochester, Salt Lake City, San Antonio, San Diego, Seattle, St. Louis, Syracuse, Toledo, Wilmington, Worcester, Honolulu. **Correspondent Relations:** Dorothea Schmidt

## FOREIGN NEWS SERVICE

**Editor:** Joseph K. Van Denburg, Jr.  
**Bonn:** Gerald W. Schroder  
**London:** Edward W. S. Hull  
**Manila:** Herbert Leopold  
**Correspondents:** Amsterdam, Athens, Bangkok, Beirut, Belgrade, Bogota, Bombay, Brussels, Buenos Aires, Cairo, Caracas, Ciudad Trujillo, Copenhagen, Djakarta, Durban, Geneva, Guatemala City, Havana, Helsinki, Istanbul, Johannesburg, Karachi, La Paz, Lima, Madrid, Melbourne, Oslo, Ottawa, Panama City, Quito, Reykjavik, Rome, Salzburg, San Juan, San Salvador, Santiago, Stockholm, Sydney, Tehran, Tel Aviv, Wellington, Winnipeg.  
**Mexico City:** John Wilhelm  
**Paris:** John O. Coppock  
**Sao Paulo:** Lionel J. Holmes  
**Tokyo:** Alpheus W. Jessup

**ADVERTISING DIRECTOR** Herman C. Sturm  
**ADVERTISING MANAGER** John M. Holden  
**BUSINESS MANAGER** Richard E. McGraw



BUSINESS WEEK • SEPT. 11 • NUMBER 1306

(with which are combined The Annalist and the Magazine of Business) • Published weekly by McGraw-Hill Publishing Company, Inc., James H. McGraw (1860-1948), Founder • Publication Office, 99-125 North Broadway, Albany, N. Y. • Editorial, Executive and Advertising Offices, 330 West 42nd St., New York 36. • Donald C. McGraw, President; Willard Chevalier, Executive Vice-President; Joseph A. Gerardi, Vice-President and Treasurer; John J. Cooke, Secretary; Paul Montgomery, Executive Vice-President, Publications Division; Ralph B. Smith, Vice-President and Editorial Director; Nelson Bond, Vice-President and Director of Advertising. Subscriptions: Address correspondence regarding subscriptions to J. E. Blackburn, Jr., Vice-

President and Director of Circulation, Business Week, 99-125 N. Broadway, Albany 1, N. Y., or 330 West 42nd St., New York 36. Allow one month for change of address. Subscriptions to Business Week are solicited only from management-men in business and industry. Position and company connection must be indicated on subscription orders. Single copies 25c. Subscription rates—United States and possessions \$6.00 a year; \$12.00 for three years. Canada \$7.00 a year; \$14.00 for three years. Other Western Hemisphere countries and the Philippines, \$15 a year; \$30.00 for three years. • All other countries \$25 a year; \$50.00 for three years. • Entered as second class matter Dec. 4, 1936, at the Post Office at Albany, N. Y., under Act of Mar. 3, 1879. • Printed in U. S. A. Copyright 1954 by McGraw-Hill Publishing Co., Inc.—All Rights Reserved.

To add the ingredients of success always depend on

# ENJAY

Petroleum Chemicals



In Surface Coatings...



In Petroleum...



In Chemicals

# ENJAY

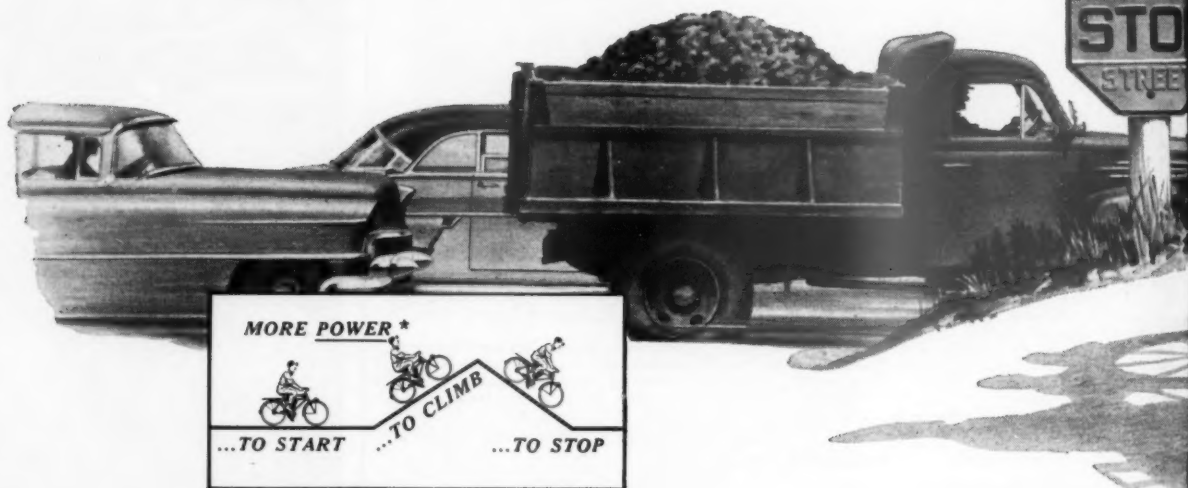
34

ENJAY COMPANY, INC.

See what **Bendix** has built ...  
for your kids!

# A WONDERFUL NEW MULTI SPEED POWER\* BRAKE FOR BIKES....

(something every Dad should know about!)



The main reason you should know about this new Bendix brake for bikes is because it's safer than the one your boy or girl has now . . . it will stop them quicker with 32% less effort. This gives your 68-pounder just as much braking power as the 100-pound lad with an ordinary coaster brake.

He also pedals easier because it has two gears. For starting up or going uphill, he flicks a trigger control alongside his handle grip to put him in "low." Another flick, when under way, and he's in "high."

But remember he brakes with his *foot*! Unlike imported hand-control brakes, our internal-expanding automotive type brake doesn't try to change his habits and confuse him. He still brakes the way he's *used* to braking—only it's a lot safer and easier.

#### **How to Order It**

Fourteen leading makes of American bicycles are now

equipped with the new Bendix\* MultiSpeed Power Brake. Whatever bike you buy, be sure that it is equipped with this great new safety feature.

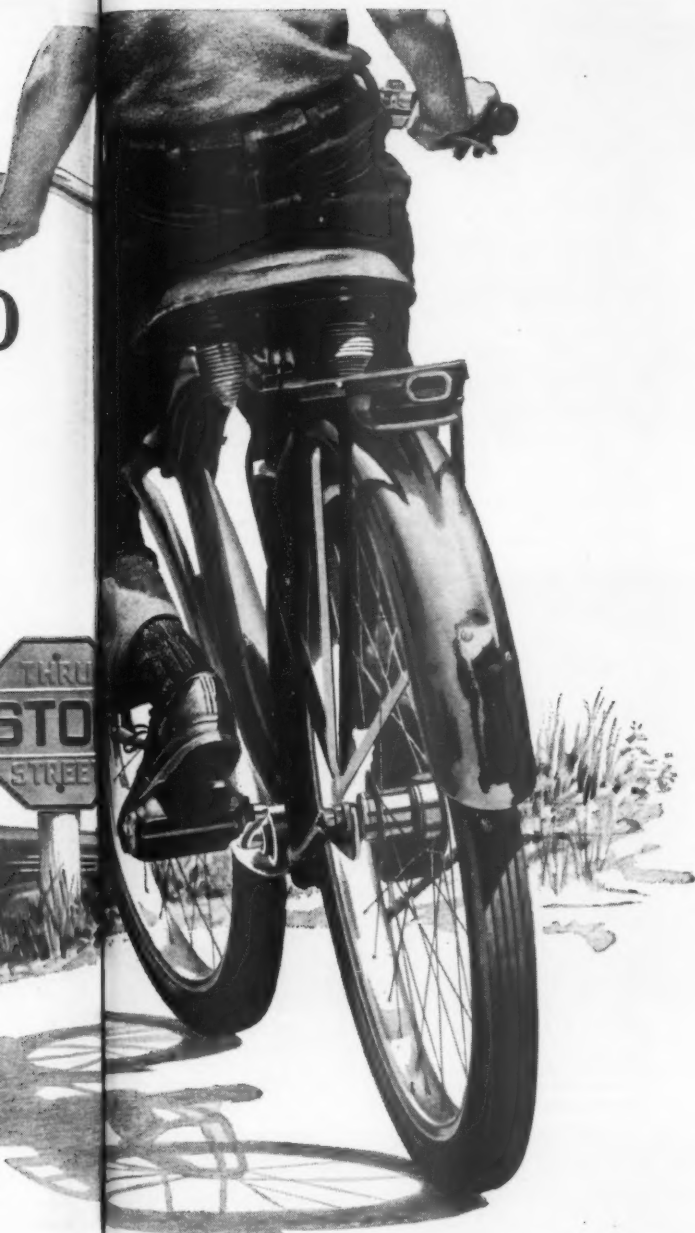
#### **World's Foremost Producer of Brakes**

Bendix and braking are almost synonymous; we've built millions of complete braking systems, brake components, linings and power brakes for cars, trucks, airplanes and bicycles over a 40-year period.

But it's only one field of Bendix endeavors.

Bendix Aviation Corporation is primarily a manufacturing organization, strong on research and engineering, which produces about a thousand products and basic components for a score or more of industrial and nuclear fields, as well as end products for you as a consumer . . . television, power brakes you can put on your present car, new-lined brake shoes, carburetors, electric fuel pumps, a fine barometer for your home





#### PRINCIPAL DIVISIONS AND BASIC PRODUCTS

##### ECLIPSE MACHINE, ELMIRA, N. Y.

bicycle coaster brakes, Stromberg carburetors, electric fuel pumps, starter drives.

##### SCINTILLA, SIDNEY, N. Y.

aviation ignition systems; industrial engine magnetos; diesel fuel injection; electrical connectors; ignition analyzers.

##### ZENITH CARBURETOR, DETROIT, MICH.

automotive, marine and small engine carburetors.

##### BENDIX-SKINNER, DETROIT, MICH.

micronic filters.

##### PACIFIC, NORTH HOLLYWOOD, CALIF.

telemetering equipment; hydraulic and electric actuators; depth recorders; boat steerers.

##### BENDIX FRIEZ, TOWSON, MD.

meteorological instruments, precision instruments and recorders.

##### BENDIX PRODUCTS, SOUTH BEND, IND.

automotive brakes, carburetors, power steering; aviation brakes, landing gear, fuel metering.

##### ECLIPSE-PIONEER, TETERBORO, N. J.

aviation instruments and components; foundry.

##### BENDIX RADIO, TOWSON, MD.

radar; auto, railroad, mobile and aviation radio; television.

##### MARSHALL-ECLIPSE, TROY, N. Y.

brake blocks, brake lining, synthetic resins.

##### RED BANK, EATONTOWN, N. J.

electronic tubes; dynamotors, inverters.

##### CINCINNATI, CINCINNATI, OHIO

automatic viscosity regulators, nuclear products.

##### BENDIX COMPUTER, LOS ANGELES, CALIF.

digital computers.

##### HAMILTON, HAMILTON, OHIO

jet engine controls and aircraft pumps.

##### LAKESHORE, ST. JOSEPH, MICH.

power steering and automotive devices.

##### UTICA, UTICA, N. Y.

aviation components.

##### MONTROSE, SOUTH MONTROSE, PA.

aviation components.

##### PIONEER-CENTRAL, DAVENPORT, IOWA

aviation instruments and components.

##### YORK, YORK, PA.

electronic devices; test equipment.

##### BENDIX-ECLIPSE OF CANADA, LTD.

Windsor, Ont.

##### BENDIX INTERNATIONAL

New York City

\*REG. U. S. PAT. OFF.

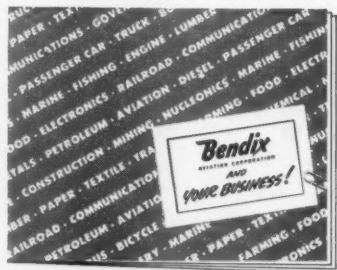
Speed Power car radios, marine ship-to-shore radio, and automatic pilots for boats.

#### Diverse

If you get the idea that Bendix policy is planned diversity, you are right. Its chief advantage to you and your business is the many ways Bendix can help you lower costs, improve efficiency and up production through the use of new products or recent research developments.

You'll find a list of our principal divisions and products at the right. But for the complete story of Bendix write for the new digest, "Bendix and Your Business," on your company letterhead direct to:

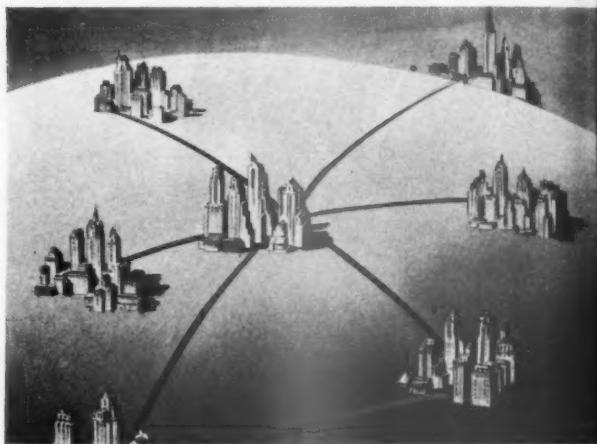
**BENDIX AVIATION CORPORATION**  
Fisher Building • Detroit 2, Michigan



# What is a WESTERN UNION Private Wire System?



1 Installed at each end of your private telegraph line, teleprinters send and receive messages. Anyone who can use a typewriter can operate a teleprinter, the heart of nearly every system, which permits instantaneous contact between points where telegraphic connection is desired.



2 Almost 4,000 Custom-Built Systems are now in use, each engineered to the specific communication needs of a specific company. You may require a system covering thousands of miles, connecting branch offices, plants and warehouses all over the country . . .



3 . . . or your needs may be simpler—requiring only a two-station system to connect a plant with your main office, or to link two divisions in neighboring cities or states. Either way, chances are you can save time and money with a Western Union Private Wire System.



In large systems, message traffic is channeled through this ingenious electronic "control center." Pushbutton operation permits one attendant to handle and re-route a tremendous volume of traffic per day... directly to any and all points in the system.

line, tele-  
no can use  
t of nearly  
s contact  
s desired.



Medium-size systems use a semi-automatic routing center. Incoming messages, on tape, are picked up by the attendant who notes the destination and places the tape in the correct sending slot. A push of a button speeds the message on its way.

use, each  
eds of a  
covering  
ants and



In addition to handling general messages, all types of business paper work such as orders, tabulations, accounting records, inventory forms, may be sent over your private telegraph system... greatly increasing its value to company operation.

a two-  
n office,  
states  
money

*If you are currently spending more than \$75 a month for communications, both oral and written, between any two points, ask yourself these questions:*

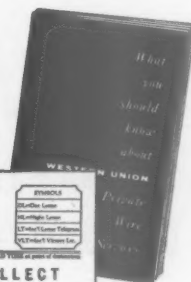
- Would instantaneous, continuous telegraphic contact between any two or more points—branch offices, warehouses, plants, etc.—add to the speed, ease and efficiency of present operations?
- Will a permanent, printed record of all incoming and outgoing communications make for a more orderly handling of the company's business?
- Has today's trend toward "decentralization" of business multiplied our own communications problems?
- Should we take advantage of volume purchasing of communications, as we do in most other business items?

If your answer to any of these questions is "yes," it will pay you to investigate the efficiency and economy of a Western Union Private Wire System. For more complete information on what such a system can do for your business, send for "WHAT YOU SHOULD KNOW ABOUT WESTERN UNION PRIVATE WIRE SERVICES," a booklet covering all types and applications of private wire communications. No cost or obligation.

**FREE BOOKLET** tells what you should know about Private Wires and their application to modern business.

**WIRE COLLECT  
FOR YOUR  
COPY TODAY.**

*Just hand  
this text to  
your secretary.*



**WESTERN -  
UNION**

PRIVATE WIRE SERVICES, DEPT. B 9  
WESTERN UNION TELEGRAPH CO.  
60 HUDSON STREET, NEW YORK, N. Y.

**COLLECT**

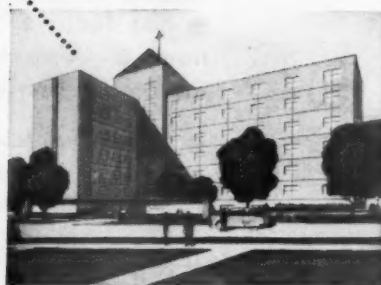
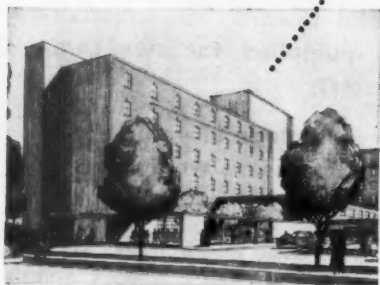
Please send, without obligation,  
copy of Private Wire Booklet.

Name \_\_\_\_\_  
Company \_\_\_\_\_ Title \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

Public gives  
**5½ millions**

to expand **HEALTH FACILITIES**

in the Valley of Promise!



New wings soon to be added to Memorial Hospital (left) and St. Joseph Hospital, in South Bend.

**ALERT** to the needs of a growing community, citizens have just given \$5,750,870 to add these new wings to South Bend's major hospitals. A striking example of the civic spirit, backed by economic vitality, which makes the Valley of Promise a good place to *work and live!*

Over and above such special appeals as the hospital campaign, citizens give nearly a million dollars every year to the United Fund for social service and welfare agencies. More than 73 per cent of the families here own their own homes—they're thrifty, provident folks, *productive, responsible workers.*

Our strategic location in relation to the national market, natural resources, utilities and labor supply, make this truly the Valley of Promise for industrial development. Let us give you detailed information.

## **SOUTH BEND and MISHAWAKA, INDIANA**

**COMMITTEE OF 100**

**SEND FOR BROCHURE** →

Here are the facts about this location, where a network of direct transport carries your product to market at costs in the lowest bracket. Your inquiry will be held in strict confidence. Address Committee of 100, Suite 310, National Bank Bldg., South Bend, Indiana.



## **READERS REPORT**

### **Not All Profits**

Dear Sir:

It was with great pleasure that I read your article on purchasing diamonds in your July 31 issue, in *Personal Business*, on page 111. It is heartening to see the jewelry industry given so much space in what I think is the must publication for all businessmen.

The information given is, by and large, quite accurate. I think it only fair, however, that you point out that the average retail jeweler today, has a net profit of only 3.3% before taxes and 2.4% after taxes. This will help those who think the 100% markup exorbitant realize that it is quite in line percentagewise with other industries as a whole. You might also point out that the markup generally includes the federal tax.

WILLIAM G. NUSSER

HANDS JEWELRY STORE  
IOWA CITY, IOWA

### **On the Map**

Dear Sir:

This is in reference to your article, Quebec-Labrador: Ore and a Frontier's Hopes [BW—Jul.31 '54,p78].

First, the company (Canadian Javelin Ltd.) in the Labrador area now has over 320,000,000 tons of iron ore proved up, rather than 100,000,000. . . .

Second, the ore area is not in the Knob Hill area as indicated on your map, but in the Wabush Lake district. This is 130 miles nearer port (Seven Islands) than is Knob Lake. . . .

Third, the company has proved up 1,000,000,000 tons of high grade titaniferous iron ore (titanium concentrates commercially excellent) about 19 miles from Arvida, Quebec, a perfect spot for a mine—roads, ports . . . cheap electric power, labor, etc., readily accessible. . . .

DAVID PALIN

LITTLETON, N. H.

Dear Sir:

. . . I wish to call your attention to the map [of] the location of the Canadian Javelin mining concession, which was inadvertently shown in the vicinity of Knob Lake instead of 150 miles south of [it]. . . .

The Nalco property will also



# You're looking at *two* warehouse fires!

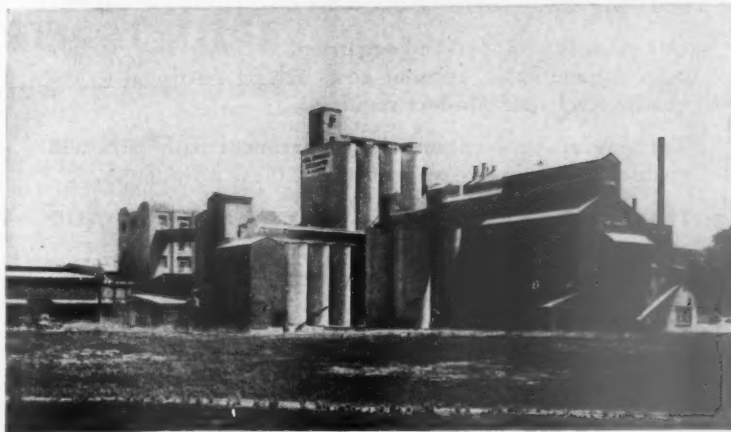
When that pall of black smoke rolling across an eastern city finally cleared, a 10-story warehouse had been completely gutted. The flames, leaping across the street, also damaged another building.

The other fire, in a warehouse of the Rice Growers Association of California, was less dramatic but no less *real*. When fire struck here, a Grinnell Automatic Sprinkler System, installed by an alert management, quickly checked the flames.

No matter how *alert* management may be, it cannot prevent fires from *starting*. That's why you find so many commercial and institutional buildings, department stores, hotels, hospitals — as well as warehouses and manufacturing plants — equipped with Grinnell Sprinkler Systems.

Grinnell Sprinklers stop fire at its source, wherever and whenever it strikes, night or day, with automatic certainty. 76 years experience proves this. Now, with the new Grinnell Automatic *Spray* Sprinklers, you get even greater protection against fire. *Less water puts out more fire.*

The time to act on Grinnell Protection is now . . . before fire burns you out, or cripples your business. Remember, a Grinnell Sprinkler System often pays for itself in a few years through reductions in insurance premiums. So, if you have fire insurance, you're probably paying for Grinnell Fire Protection anyway . . . *why not have it?* For complete details, mail coupon.



## GRINNELL

PROTECTION AGAINST EVERY FIRE HAZARD

Manufacturing, Engineering and Installation of Automatic Sprinklers Since 1878



GRINNELL COMPANY, INC.  
265 West Exchange Street, Providence, Rhode Island

Please send me your new illustrated booklet, "Grinnell Automatic Spray Sprinklers".

NAME .....

TITLE .....

COMPANY .....

STREET .....

CITY ..... ZONE ..... STATE .....

sure that  
purchasing  
31 issue,  
page 111.  
jewelry  
space in  
publica-

s, by and  
think it  
ou point  
d jeweler  
of only  
4% after  
ose who  
o exorbi-  
e in line  
r indus-  
ight also  
p gener-  
ax.

NUSSER

to your  
Ore and  
—Jul.31

Canadian  
ador area  
0 tons of  
her than

not in the  
cated on  
ush Lake  
es nearer  
is Knob

s proved  
of high  
(titanium  
y excel-  
Arvida,  
r a mine  
p electric  
y access-

ID PALIN

attention  
on of the  
ng con-  
vertently  
nob Lake  
outh of

will also

. 11, 1954



**motor quality  
that knows no altitude**

Whether powering aircraft components—or many types of industrial, commercial and domestic products—Lamb Electric Motors have a record of outstanding performance and long life.

Our plant is equipped and organized to *custom manufacture* on a volume basis, and our costs are proportional to the quality level your product requires.

Teaming up your engineering department with ours will enable *your* company to profit from these advantages.

**THE LAMB ELECTRIC COMPANY • KENT, OHIO**

In Canada: Lamb Electric—Division of  
Sangamo Company Ltd.—Leaside, Ontario

**Lamb Electric**

**SPECIAL APPLICATION  
FRACTIONAL HORSEPOWER MOTORS**



Aircraft windshield  
wiper motor.

Aircraft pressurizing  
pump motor.

Aircraft fuel tank  
valve actuator.

move correspondingly and contiguous to the southern boundary of the Canadian Javelin concession. . . .

PAUL E. PESONEN

CHIEF ENGINEER  
CANADIAN JAVELIN LTD.  
MONTREAL, CANADA



• The colored line on the above map indicates where we showed Canadian Javelin. The correct location, as pointed out by Readers Palin and Pesonen, is shown in solid color.

## The People's Choices

Dear Sir:

When I read in your Aug. 14 issue, *People: What's Behind Their Choices*, that most housewives failed to use instant coffee for years after it came on the market because "it made them feel lazy and ashamed of themselves"—I hooted. And I couldn't believe that any housewife had made such a statement, entirely inconsistent with her habits. It was interesting to see in the Aug. 21 issue that she didn't. When asked why she, herself, didn't use instant coffee, she said she "didn't like the taste." But when asked to comment on other housewives who buy it, she considered them "lazy." And so "it seems to emerge rather clearly that women steered clear of powdered coffee because it gave them a picture of themselves they didn't like."

Baloney! There is no such thing as a housewife who is ashamed to adopt an easier method because she may be thought lazy. If . . . so, there would be no market at all for washing machines, mixers, vacuum cleaners, [etc.]. . . . The housewife is a push-over for the easier method—she will even rig up an

# Why quiet always makes a grand entrance!

The Johns-Manville Fibretone Acoustical Ceiling in the attractive lobby of the American Radiator and Standard Sanitary Corp. building in New Orleans, La., is a major reason for the quiet comfort that surrounds every visitor.

Theodore L. Perrier  
Architect—New Orleans, La.



## Johns-Manville

### FIBRETONE ACOUSTICAL TILES

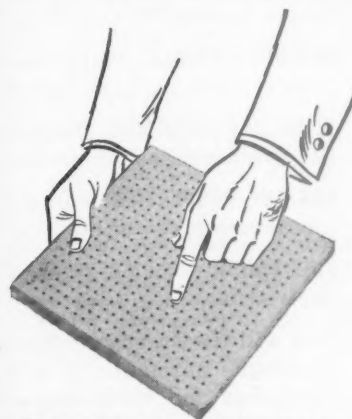
reduce disturbing noise at low cost

**B**ECAUSE distracting noise is so harmful to efficiency in any activity, practically all new building specifications include acoustical ceilings for sound absorption. However, just because your present building was constructed before sound control became an established science, there is no reason for you to be handicapped by noise. You can have a Johns-Manville Fibretone\* Acoustical Ceiling quickly installed over your present ceiling.

Johns-Manville Fibretone offers an acoustical ceiling which is highly efficient yet modest in

cost. It consists of 12" square panels of sound-absorbing materials in which hundreds of small holes have been drilled. These holes act as "noise-traps" where sound energy is dissipated. Fibretone is predecorated, can be painted and repainted, and is available with a flame-resistant finish.

For a complete survey by a J-M acoustical expert, or for a free book entitled "Sound Control," write Johns-Manville, Box 158, Dept. BW, New York 16, N. Y. In Canada, write 199 Bay Street, Toronto 1, Ontario. \*Reg. U. S. Pat. Off.

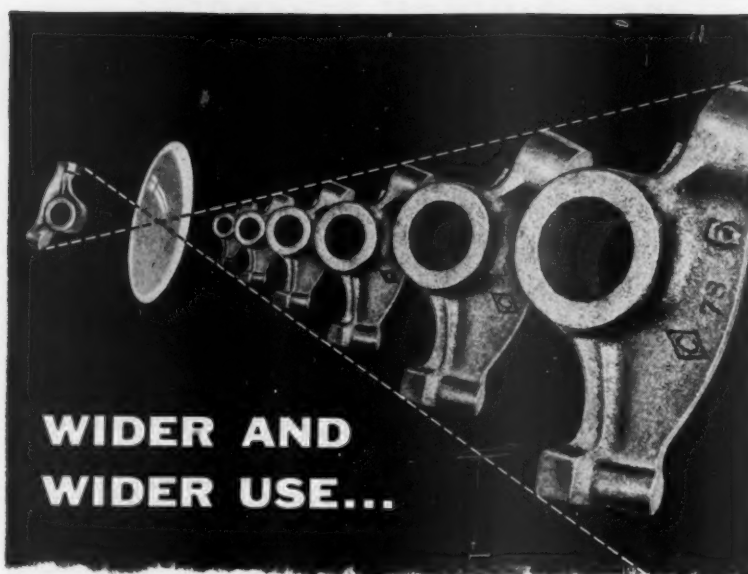


Fibretone Tiles are easily installed over new or existing construction. Hundreds of small holes drilled into the sound absorbent panels increase acoustical efficiency.

## Johns-Manville



40 years of leadership  
in the manufacture of  
acoustical materials



## PEARLITIC MALLEABLE CASTINGS as engineers see its many advantages

**DESIGN ADAPTABILITY:** Because of its good fluidity, it can be cast in thin sections and in complicated shapes.

**HIGHER STRENGTH:** Ultimate strengths range between 60,000 and 90,000 psi; yield strength between 40,000 and 70,000 psi.

**EASILY MACHINED:** Machinability index (B1112 Steel = 100) ranges between 80 and 90.

**WEAR RESISTANCE:** Withstands excessive wear under heavy loads at high speeds.

**LOCALIZED HARDENING:** Sections of the casting can be flame hardened or induction hardened before or after machining.

**BEARING PROPERTIES:** Good non-seizing properties in metal-to-metal contact.

**FINE FINISH:** Can be given a very smooth finish where desired.

You will find many applications for Pearlitic Malleable castings—particularly as a replacement for forgings, stampings and weldments—where reduced weight, less machining time, fewer assembly operations and better appearance are important production and sales considerations.

# NATIONAL MALLEABLE AND STEEL CASTINGS

The Nation's largest independent producer of malleable and pearlitic malleable



**COMPANY**  
Cleveland 6, Ohio

A-5277

electrical gadget to squeeze oranges. Why, then, would she look down her nose at anyone who takes a short cut? Not because it's a short cut, but because the easier method doesn't measure up to the old way. . . . The instant coffee housewife was considered lazy because she wouldn't take a little more trouble to provide the family with better tasting coffee.

What emerges, it seems to me, is that TASTE does make the difference, and is the underlying thought both in the decision not to use instant coffee and in the opinion passed on those who do. After all, that's what the housewife said when asked why she, herself, didn't use it. Why not take the lady's word for it?

MARY B. WALLE  
GREATER NEW ORLEANS, INC.  
NEW ORLEANS, LA.

• Certainly, the taste factor is involved, but why should it affect coffee particularly? After all, few housewives now hesitate to abandon home baked bread for bakery bread, and all sorts of prepared mixes are selling readily. It's probably a combination of the taste factor and the special ritual importance that coffee and its preparation have in most families.

Dear Sir:

Heartiest congratulations on your first article on Motivation. This is a splendid summary, and I am looking forward to reading the next two in the series.

Of course, I must admit that one reason I thought your analysis was so good was because your position squares so completely with my own. I had a feeling several times that you were saying in much better journalistic style what I have tried to say several places in my book, *Social Psychology of Modern Life*.

STEUART HENDERSON BRITT  
VICE-PRESIDENT  
NEEDHAM, LOUIS & BRORBY, INC.  
CHICAGO, ILL.

Dear Sir:

. . . I am 70 years old. My life has been spent more or less in management of businesses, where success depended to a high degree on personal contact. . . .

It is my opinion that it is the things that people DO NOT WANT that are basic in their thinking and in their motivations. You may say to me—"Oh, that's just a negative approach; it would be better to say, 'I want to climb a tree' than to say 'I don't want to stay on the



oranges.  
ok down  
takes a  
s a short  
r method  
the old  
ee house-  
because  
tle more  
mily with

to me, is  
he differ-  
g thought  
t to use  
opinion  
After all,  
wife said  
lf, didn't  
ne lady's

. WALLE  
INC.

or is in-  
it affect  
all, few  
to aban-  
r bakery  
prepared  
t's prob-  
he taste  
tual in-  
and its  
families.

on your  
This is  
d I am  
ling the

that one  
ysis was  
position  
with my  
al times  
a much  
at I have  
s in my  
Modern

W BRITT

INC.

My life  
less in  
, where  
a degree

t is the  
WANT  
ing and  
may say  
negative  
r to say,  
than to  
on the

11, 1954

ground"—but there is where I differ.

Positive wants are limitless; they change with day and night; the food we eat, our health, our age, our personal contacts, etc., whereas negative wants are fewer, much more powerful in their motivations, and the more permanent the longer they persist.

"I don't want to stay on the ground" can be met by: Being carried in someone's arms, by climbing a tree, by going in an airplane, by climbing stairs, and so on. Thus you have one negative want that covers a multitude of positive wants. . . .

People WANT everything. It is their negative wants—"I don't want to be thought dishonest", "I don't want to go to prison", that motivate them, not the wants. People who are motivated only by positive wants are entirely irresponsible.

Think how many positive wants could be held in abeyance by the one negative want—"I don't want to reduce my savings below their present amount."

LIONEL L. JACOBS  
LIONEL L. JACOBS & SONS  
WAYNE, PA.

• Beyond the fact that your point might become a purely verbal one—a matter of whether you state a thing negatively or affirmatively—we think your view is one held by a number of psychologists who put motivational problems in terms of "tension" which a person seeks to escape. According to this view, a person takes action because he is in a state of discomfort, and he acts in order to reduce that discomfort. Certainly this would describe the behavior of an infant; when hungry, say, he simply thrashes around and makes noises at random until something happens to relieve his hunger. After a while he learns that a particular action—crying, for instance—seems to reduce the hunger more quickly than others. Whether this is a useful description of adult human behavior or whether such behavior can be better understood in terms of positive goal would be a question to be factually determined by a long body of experiments and observations rather than by philosophizing. So far as we are aware, it is at present impossible to make a firm answer as between the two approaches, but it is our impression that most psychologists nowadays are swinging away from the negative, tension analysis, and are talking in terms of positive goals.

BUSINESS WEEK • Sept. 11, 1954

# THE NORDEN DIGITAL CONVERTER

In answer to the far reaching cry for a simple, accurate means of transposing mechanical information into comprehensible numerical digital notation, the Norden Digital Converter, now available, ranks supreme.

## UNAMBIGUOUS OUTPUT OF 13 BINARY DIGITS, LOW TORQUE LOAD

Requiring no additional equipment, this unit, with an unambiguous output of 13 binary digits (total count of 8,192), instantaneously converts shaft position information into direct digital notation. The torque load of the input shaft is 0.2 in-oz.

## MINIMUM SIZE, MAXIMUM ACCURACY

Weighing less than 7 ounces, only 1.75" in diameter and 2.75" long, the Norden Digital Converter is able to maintain accuracy within  $\pm 0.006\%$  . . . or 1 count in 16,384.

## CLOCKWISE OR COUNTER CLOCKWISE OPERATION

Either D.C. or pulse-operated, the converter can be wired to supply an increasing count for either clockwise or counter clockwise rotation. Where requirements necessitate an output greater than 13 binary digits, a special unit can be designed.

## COUNTLESS APPLICATIONS

With a possible rate of 25,000 counts per minute, the uses of the Norden Digital Converter as a counting device are innumerable. It may be used to convert shaft position to digital notation or as an output device for shaft positioning.

In an era when scientific achievement is attaining unprecedented heights, there is no end to the ways in which the use of Norden precision products can simplify the search for progress . . . from the smallest, most sensitive element to the expansive, Navigational, Fire Control and Bomb Director systems.



NORDEN  
Precision Products

### NORDEN TEMPERATURE PROBES



designed for all-weather operation in the sub-sonic and super-sonic range.

### NORDEN PRECISION REDUCTION GEAR BOXES



designed for maximum performance with minimum weight and ultra-precision.

### NORDEN SYNCHRO ALIGNMENT SETS



designed for accurate laboratory and production alignment of synchros and resolvers.

### NORDEN COMPUTER TEST SETS



are designed and manufactured to meet exacting requirements.



STORIES  
ON

# Wausau Story

By WALTER O'MEARA

author of "The Grand Portage"—his new novel, out in October, is "The Spanish Bride."



"Most everyone heads for the duck blinds . . .". Mr. O'Meara at Wausau's Wisconsin River shores with Stan Schaller of Shepherd and Schaller Sporting Goods Store.

## Employers Mutuals of Wausau are "good people to do business with"

As Mr. O'Meara discovered—there is such a thing as a *Wausau personality*. It's a certain good way of doing business. You'll find it in each of our 89 offices throughout the country. You will find progressive insurance thinking, too.

There was a time when you had to have 25 or more employees to qualify for Group Health and Ac-

cident insurance. But Employers Mutuals now provides "Junior" Group Plans with the same hospital and surgery benefits for *smaller* groups of 5 to 24 employees. Phone our local office or write to Wausau, Wisconsin.

Employers Mutuals handles all lines of casualty and fire insurance, and specializes in **workmen's compensation**.

What is there about Wausau, Wisconsin, that makes it the ideal home for one of the world's most important insurance companies?

Employers Mutuals invited a distinguished novelist to visit Wausau to find out.



"Wausau works hard, has accomplished much." Mr. O'Meara at Wausau's Curtis Companies, Inc.

At heart, someone has said, there are only three kinds of people: sea people, hill people and woods people. The pity is, so few of us can follow our hearts. In Wausau, they do.

Before you've been there half an hour, you know which kind of folks they are in Wausau. They're "woods people"—no doubt about it! The Outdoors is big and very near here, and Wausau takes to the woods at the drop of a dry fly.

Enjoyment of the outdoors isn't just a week-end thing here in Wausau.

Many people commute from their cottages on the near-by lakes every day in summer. Many plants and offices (such as the Curtis Companies, Inc., which I visited) open early and close early, so everyone can give daily attention to trout pools, garden plots and golf courses.

Don't think that Wausau folks do nothing but enjoy their natural blessings. Wausau works hard, has accomplished much. Yet its people are relaxed and friendly. They've got time—and take it—to share their good life with others.

It's part of their nature—of the *Wausau personality*. It's what makes them such good people to do business with!

## Employers Mutuals of Wausau



Rib Mountain

TRVST

MAKE YOUR LUBRICATION DOLLAR

DO A BIGGER, BETTER JOB!

**SIMPLIFY and SAVE**  
**The Pure Oil Way!**

The *sure* way to make your lubrication dollar do a *bigger*, better job is to **SIMPLIFY** and **SAVE** with Pure Oil multipurpose lubricants.

These specially formulated lubricants cut costs six ways by doing *many different jobs equally well* ... eliminate the need for large, confusing lubrication inventories which cost you in time, space and efficiency.

Take the first easy step to this *easy way to save real maintenance money*. Clip out the coupon and mail it today. The free booklet you receive will give you complete information on this dollar-saving program.

**6-WAY  
SAVINGS!**

1. Simplifies Lubrication
2. Speeds Up Application
3. Minimizes Mis-application
4. Cuts Down Inventories
5. Eases Stock Control
6. Streamlines Purchasing

Be sure with Pure—Sales offices located in more than 500 cities in Pure's marketing area. ➡



**PURE OIL  
INDUSTRIAL  
LUBRICANTS**

**FREE BOOKLET**

The Pure Oil Company, Industrial Sales Dept. B-510  
35 E. Wacker Drive, Chicago 1, Illinois  
Please send me your free booklet on how to "Simplify and Save."

NAME \_\_\_\_\_  
POSITION \_\_\_\_\_  
COMPANY \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_





...TO PROTECT YOUR HEALTH



WHEN FLOODS COME, the threat to health from polluted waters is minimized by using pine oil disinfectants in clean-up operations. Pine oil disinfectants have long been recognized for their high germicidal action and good cleansing qualities. Economical to use, and possessing a pleasant fragrance, disinfectants, cleaning compounds, and soaps made with Hercules® Pine Oil are widely used in industry and the home.

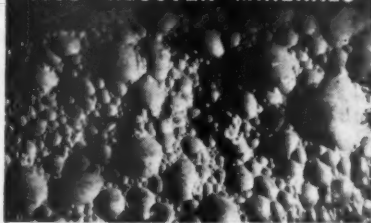
## HOW HERCULES HELPS ...



Most businesses are helped today by Hercules' business ...the production of synthetic resins, cellulose products, chemical cotton, terpene chemicals, rosin and rosin derivatives, chlorinated products, and many other chemical processing materials—as well as explosives. Through close cooperative research with its customers, Hercules has helped improve the processing or performance of many industrial and consumer products. We welcome the opportunity to work with you.

**HERCULES**

### ...TO "RECOVER" MINERALS



THE FLOTATION PROCESS is used extensively in industry to separate fine particles of valuable minerals, ranging from coal to gold, from less useful materials by floating to the surface and removing in a froth formed by air bubbles. Hercules flotation agents, Yarmor® Pine Oil, Rosin Amine D Acetate, and others, serve as frothers or collectors in this job.

### ...TO KEEP GOODS MOVING



DESIGNED TO PROTECT industrial equipment, from the time it leaves the factory, lacquer is outstanding. When necessary, re-finishing can be done quickly and economically because of lacquer's fast-drying, fast-taping properties. As a major supplier of nitrocellulose to lacquer manufacturers, Hercules has available a wealth of technical information on lacquer and its many uses.

HERCULES POWDER COMPANY

968 Market St., Wilmington 99, Del.  
Sales Offices in Principal Cities



# BUSINESS OUTLOOK

**BUSINESS WEEK**

**SEPT. 11, 1954**

**A BUSINESS WEEK**

**SERVICE**

Industry's outlays for new plant and equipment may be a little disappointing late this year and in 1955 (page 26). But there's an offset:

Business will increase its purchases of raw materials and parts.

In short, total business spending will decline little if you lump capital expenditures and inventory buying. That's a reversal after 12 months in which record capital outlays helped offset inventory slashing.

Business stood, just a year ago, at the edge of a recession, just how bad nobody quite knew.

Now it's autumn again (maybe not by the calendar, but as business reckons its seasons), and we're through the treacherous period.

That inventory "adjustment" is all but a thing of the past.

Quite possibly there will be no quick rise. That's Washington's belief now (page 37). But the going shouldn't be too difficult.

Stable prices and time are the big things in moving inventory without acute pain. And, as history shows, that's a rare combination.

The last 12 months, however, tell their own story. We've had stable prices during a solid year of inventory liquidation.

There have been price cuts, some hidden and some open. But just enough to lure the buyer, not to frighten him away.

Prices of manufactured goods, over-all, have scarcely moved since the summer of 1953. The wholesale index for items other than farm products and foods has held between 114.2 and 114.8. Today it is 114.4.

Such a fluctuation—a scant ½%—is novel in the calmest times. It's doubly so when inventory is top-heavy and production is dipping 10%.

It's unusual, too, for prices to hold with unemployment worsening.

Cuts in manufacturers' stocks of durable goods—toughest spot in the 1953-54 inventory trouble—now run to more than \$2-billion. (Stocks were over \$26.6-billion a year ago; now they're \$24½-billion.)

If the percentage reduction doesn't look very deep, bear in mind that a lot of untouchable military stuff pads those figures.

Steel production and auto output will be moving in opposite directions over the next two months. That's one of the reasons why business will have difficulty posting much more than just the normal seasonal rise.

Perhaps the steel people are needling customers a little. Anyhow, they're telling users of certain products, at least, that delivery time is lengthening—that metal can't be ordered one day and laid down the next.

Maybe there's some exaggerating. Steel salesmen like to eat, too.

But the bolder attitude signals a better market. While Labor Day interrupted steel's slow output climb, greater activity is right ahead (page 25).

Autos are going into a more than seasonal decline just as surely as

ions. Pine  
possessing  
the home.

MOVING

equipment,  
ory, lacquer  
re-finishing  
omically be-  
fast-taping  
f nitrocellu-  
lercules has  
information

# BUSINESS OUTLOOK (Continued)

**BUSINESS WEEK**  
**SEPT. 11, 1954**

steel is going to be doing a little better than normal. And the drop in auto output will look all the worse for the fact that the industry has not been subject to purely seasonal swings in many years.

**Output of new autos has dropped from a 1954 high of 533,000 in April to 425,000 for August. It will go substantially lower in September.**

**Moreover, no real pickup is due until late October or November.**

It's the first leisurely model change since the war. This time, Detroit wants to clean up old models and get new ones off to a real start.

**Trucks present their own problem—and it's only partly a model change. Demand, both civilian and military, has shrunk pretty drastically.**

**Ward's Automotive Reports sees September truck output of only 64,000—the sixth straight monthly decline and an eight-year low. The "independents" particularly are feeling the squeeze.**

—•—  
**Price increases in both lead and zinc the last few days might be more indicative of business conditions in other circumstances. They must now be partially discounted because:**

- **The government stockpiling program plays quite a role in demand.**
- **Price boosts wouldn't have looked good during wage negotiations.**

—•—  
**Sales to consumers on credit—disappointing as they have been to many retailers this year—will set another high come December. The catch is, of course, that consumer credit won't top 1953's peak by much.**

Both 1952 and 1953 saw consumer credit expand by well over \$3-billion. But this year's rise is unlikely to be even \$500-million.

Even so, this would push the total over \$29-billion. And it would mean a rise of more than a billion from now through Christmas.

Brisk June-July auto sales added something over \$250-million to the volume of installment credit. This was substantially better than the rise for the same two months last year (autos were becoming hard to sell), and makes up more than half the drop for 1954's first five months.

—•—  
**Construction trends in August, if anything, tend mainly to widen the margins of gain over a year ago.**

The value of work done on privately financed construction last month topped \$2.4-billion. That was 10% ahead of last August, while the first eight months were 5% ahead of a year earlier.

**Home building, after fairly skimpy gains early in the year, really got rolling this summer. Work on new dwelling units had an estimated worth of \$1,140,000,000 in August, 15% ahead of a year ago.**

**And here's a hopeful word on how new homes are selling:**

Chicago's Federal Reserve Bank (that had expressed misgivings earlier), after a survey of its district, finds "none of the builders contacted hold appreciable inventories of unsold homes despite the recent upsurge of speculative building."

**Moreover, the bank adds, many say they are sold well ahead.**



*For years of  
faithful service...*

*nothing says it  
like a Hamilton*

Top-management survey of service award programs shows  
more HAMILTON WATCHES are presented than all other makes combined!

Why?

Because Hamilton is the most respected name in watches. Because more people *want* a Hamilton than any other watch.

A Hamilton is the highest achievement in the art of fine watchmaking . . . the most frequent choice of those who give or receive a remembrance of the highest significance.

HAMILTON WATCH COMPANY, LANCASTER, PENNA.



*If you are now using a service award program, or planning to start one, Hamilton's new booklet "How to Get the Most From an Employee Award Program" will give you a wealth of valuable information. Your copy is ready for you now.*

HAMILTON WATCH COMPANY  
Special Sales Division, Dept. B-9  
Lancaster, Pennsylvania

*Gentlemen: Please send me my copy of "How to Get the Most From an Employee Award Program."*

NAME \_\_\_\_\_

TITLE \_\_\_\_\_

COMPANY \_\_\_\_\_

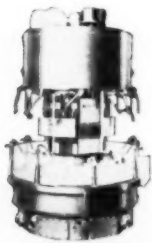
ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_



Combine in Palouse Wheat Fields

FPG Photo



**Bullard Mult-Au-Matic  
Type "D" and Type "K"**

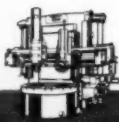
## The Invisible Background ... of Industrial Progress ...

Not too many years ago, farming was an occupation of long hours, physical brawn and animal power. Today, however, thanks to mechanical tools and implements, the job of those engaged in agriculture is more productive with less effort and time. This enables the farmers, by and large, to enjoy today's high standard of living and modern conveniences.

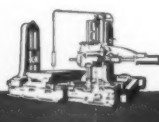
Manufacturers of trucks, cultivators, tractors, sprayers, thrashers, spreaders and reapers, just to mention a few, recognize that modern methods and procedures using *Modern Machine Tools* enable them to provide the farmer with these labor-saving, time-saving implements at lowest cost—another example of "The Invisible Background of Industrial Progress."



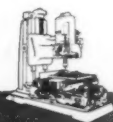
MULT-AU-MATIC



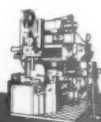
MULT-AU-MATIC



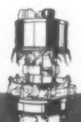
HORIZONTAL MILLING



SPACING TABLE



HAMMER MILL

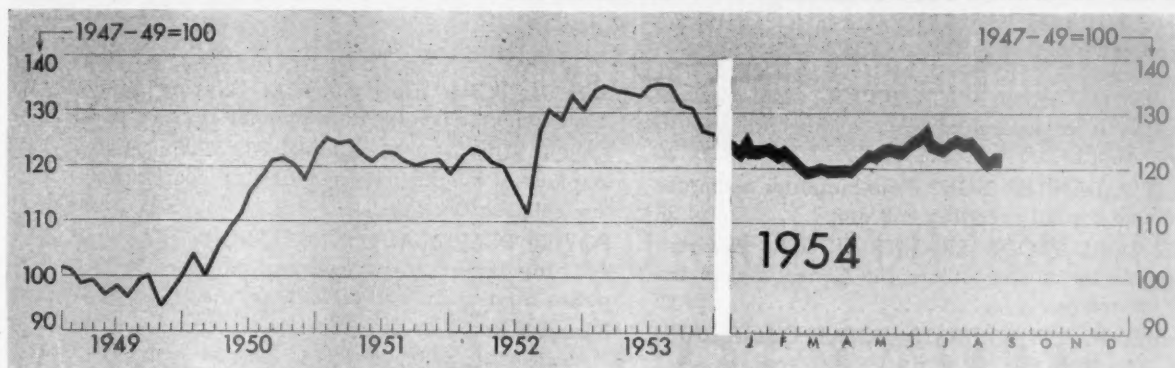


MULT-AU-MATIC

**THE BULLARD COMPANY • BRIDGEPORT 2, CONNECTICUT**



# FIGURES OF THE WEEK



**Business Week Index** (above) . . . . . \*122.5 †122.6 124.2 132.0 91.6

## PRODUCTION

Steel ingot production (thousands of tons).....	1,500	†1,525	1,525	2,011	1,281
Production of automobiles and trucks.....	110,706	†113,496	124,168	132,674	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands).....	\$46,978	\$53,292	\$54,558	\$46,430	\$17,083
Electric power output (millions of kilowatt-hours).....	9,087	9,227	9,059	8,694	4,238
Crude oil and condensate production (daily av., thousands of bbls.).....	6,111	6,141	6,153	6,534	4,751
Bituminous coal production (daily average, thousands of tons).....	1,235	†1,257	1,250	1,623	1,745
Paperboard production (tons).....	244,002	241,922	245,341	259,476	167,269

## TRADE

Carloadings: manufactures, misc., and l.c.l. (daily av., thousands of cars).....	67	67	66	78	82
Carloadings: raw materials (daily av., thousands of cars).....	46	46	48	59	53
Department store sales (change from same week of preceding year).....	+1%	none	+1%	-9%	+30%
Business failures (Dun and Bradstreet, number).....	193	184	207	178	22

## PRICES

Spot commodities, daily index (Moody's Dec. 31, 1931 = 100).....	412.3	410.7	429.7	415.5	311.9
Industrial raw materials, daily index (U. S. BLS, 1947-49 = 100).....	86.4	86.6	85.6	85.1	††73.2
Foodstuffs, daily index (U. S. BLS, 1947-49 = 100).....	97.6	98.5	99.2	96.3	††75.4
Print cloth (spot and nearby, yd.).....	18.9¢	18.9¢	18.9¢	21.0¢	17.5¢
Finished steel, index (U. S. BLS, 1947-49 = 100).....	144.5	144.5	144.5	141.7	††76.4
Scrap steel composite (Iron Age, ton).....	\$29.00	\$28.67	\$27.83	\$38.67	\$20.27
Copper (electrolytic, Connecticut Valley, E&MJ, lb.).....	30.000¢	30.000¢	30.000¢	29.969¢	14.045¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.).....	\$2.40	\$2.44	\$2.36	\$2.20	\$1.97
Cotton, daily price (middling, ten designated markets, lb.).....	34.23¢	34.17¢	34.27¢	32.89¢	30.56¢
Wool tops (Boston, lb.).....	\$2.25	†\$2.25	\$2.24	N.A.	\$1.51

## FINANCE

90 stocks, price index (Standard & Poor's).....	242.5	240.5	242.0	187.3	135.7
Medium grade corporate bond yield (Baa issues, Moody's).....	3.47%	3.47%	3.50%	3.88%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate).....	1½-1½%	1½-1½%	1½%	2½%	3-1%

## BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks.....	54,028	54,215	54,217	53,059	††45,820
Total loans and investments, reporting member banks.....	82,760	82,977	83,548	79,385	††72,036
Commercial and agricultural loans, reporting member banks.....	20,805	20,773	20,770	22,965	††9,299
U. S. gov't guaranteed obligations held, reporting member banks.....	35,911	36,107	36,605	31,797	††49,879
Total federal reserve credit outstanding.....	24,890	24,859	25,105	26,071	23,883

## MONTHLY FIGURES OF THE WEEK

Employment (in millions).....	August.....	x62.3	x62.1	63.4	55.2
Unemployment (in millions).....	August.....	x3.2	x3.3	1.2	2.3
Private expenditures for new construction (in millions).....	August.....	\$2,436	\$2,387	\$2,223	\$803
Public expenditures for new construction (in millions).....	August.....	\$1,169	\$1,125	\$1,122	\$197
Retailers' inventories (seasonally adjusted, in millions).....	July.....	\$22,408	\$22,600	\$22,743	\$9,791
Manufacturers' inventories (seasonally adjusted, in millions).....	July.....	\$44,208	\$44,526	\$46,485	\$21,238
Personal income (seasonally adjusted, in billions).....	July.....	\$286.5	\$286.5	\$288.2	\$178.0
Farm income (seasonally adjusted, in billions).....	July.....	\$16.0	\$16.2	\$15.2	\$18.9
Consumer credit outstanding (in millions).....	July.....	\$27,835	\$27,791	\$27,581	\$6,704
Installment credit outstanding (in millions).....	July.....	\$21,246	\$21,122	\$21,004	\$3,174

\* Preliminary, week ended Sept. 4, 1954.

† Revised.

†† Estimate.

N.A. not available.

x New series. Not comparable with previous data.

‡ Date for "Latest Week" on each series on request.

# in BUSINESS this WEEK...

## GENERAL BUSINESS:

**QUESTION: HOW MUCH BETTER?** Improvement in steel will depend mostly on auto industry in next quarter. ....p. 25

**IS IT A DANGER SIGN?** Fourth-quarter estimates indicate capital spending will drop. ....p. 26

**BIG COAL PRODUCER GETS BIGGER.** Advising mergers for its competitors, Pitt Consol makes one of its own. ....p. 27

**A BRIDGE FOR TOURISTS—AND FLORIDA LAND**

**SPECULATORS.** New Sunshine Skyway Bridge opens ten counties for development. ....p. 28

**LABOR SUPPLY: IT'S LOOSER NOW.** But skilled employees—engineers, machinists, secretaries—are still scarce. ....p. 30

**POWER DEAL READY FOR SIGNING.** TVA and AEC are reported in agreement on order to buy power from Dixon-Yates. ....p. 31

**Business Briefs** ....p. 34

## BUSINESS ABROAD:

**INDONESIA: DRIFTING TOWARD RED CHINA.** Here's what lies behind its recent list to the left. .p. 144

**SPLITTING FOA ORDERS 50-50.** U. S. firms will get some, regardless of low bids. ....p. 152

## COMPANIES:

**SELLING BANKERS A HIGH-STYLE DOOR FOR VAULTS.** Diebold, Inc. introduces the first radical change in fifty years. ....p. 110

## FINANCE:

**GOOD DEEDS DISPEL A BAD NAME.** Investors show faith in paper shares as production remains high. ....p. 134

**AN ILL WIND FOR INSURANCE.** Hurricane Carol will claim \$100-million from underwriters. ....p. 141

## GOVERNMENT:

**TAX ARTISTS ADD SOME CHARM TO REJIGGERED REVENUE LAW.** T. Coleman Andrews heads group that will produce new tax forms (cover). ....p. 62

**CONTESTANTS GET SET FOR THE ELECTION RACE.** To the winners—control of 84th Congress. ....p. 66

**UNWANTED NIKE.** Cities oppose installation of Army's guided-missile defense net. ....p. 72

## INDUSTRIES:

**NEW OIL: SO FAR, THE HUNTING IS GOOD.** And bigger companies enter the wildcatting game. ....p. 120

**CASHING IN ON TAX WRITE-OFFS.** California real estate firms court small speculators with a new finance plan. ....p. 128

	Page
Business Outlook	17
Washington Outlook	37
International Outlook	159
Personal Business	179
The Trend	196
Figures of the Week	21
Local Business	55
Readers Report	8

**STEEL TRUCKERS** ... are in trouble as rails regain business. ....p. 132

## LABOR:

**ROUGH SEAS HIT UNION PENSION.** AFL program for electrical workers threatened—it can happen when business lags. ....p. 41

**BREAKING A STRIKE.** Red angle helps Detroit company in efforts to defeat UE. ....p. 42

**BONUS PLAN.** Tying wages to plywood prices helps workers in two Oregon mills. ....p. 44

**THE LABOR ANGLE:** Twilight of the pattern settlement. ....p. 47

**ARBITRATION.** Bethlehem Steel's record shows how impartial umpires smooth labor relations. ....p. 49

## MANAGEMENT:

**LONGER LIVES FOR EXECUTIVES.** How health examination program works for U. S. Rubber. ....p. 101

**LINE EXECUTIVES** ... will get help from AMA seminars this fall. ....p. 102

**TWO COMPANIES: ONE PRODUCER.** For two metal-working firms in Pittsburgh it's a new switch in mergers. ....p. 104

## MARKETING:

**RUSHING PARIS IDEAS TO THE**

**U. S. MARKET.** The frenzy when Russeks receives first shipment of dresses to be copied. ....p. 164

**WAR ON THE DISCOUNT HOUSE.** Department stores spearhead the attack by slashing prices. ....p. 170

**HAZEL BISHOP SUES GILLETTE.** Cosmetic maker claims Gillette used trade secrets to promote Toni. ....p. 174

## THE MARKETS:

**A NEW LEASE ON LIFE.** Rip-snorting Wall Street bulls are back in business. ....p. 162

## PRODUCTION:

**BOGUS PARTS PLAGUE INDUSTRY.** If your product is easily duplicated, counterfeiters may be at work. ....p. 182

**TOUGHER COMPETITION IN OFFICE EQUIPMENT.** Burroughs Corp. gets new ideas rolling in its competitive drive. ....p. 186

**AIR POLLUTION ON THE SCALES.** Battelle Memorial weighed Louisville's problem, but found the answers elusive. ....p. 188

**NEW PRODUCTS** ....p. 192


## REGIONS:

**MINING TOWN LIFE NOW IS LIKE ANYWHERE.** With the boom in taconite, Babbitt, Minn. more and more resembles Suburbia. ....p. 78

**A LITTLE WATER HELPS.** Kentucky engineers will cut corners to link two big rivers. ....p. 89

**URANIUM AND OIL CAN MIX NOW.** New Federal law opens vast oil and coal land to uranium prospectors. ....p. 90

**NOT KILLING THE IRON GOOSE.** Minnesota studies tax revision to ease burden on iron mining companies. ....p. 94



If your firm uses MACHINED parts that look anything like these COLD-FORMED parts...

We'll show you how to  
**cut your  
costs  
30% to 70%**

*9 out of 10 companies using small machined parts like these are wasting thousands of dollars per year!*

*We know! We've proved in plant after plant all over the country that parts cold-formed the Milford way cost 30% to 70% less than when made by machining or other methods . . . whether the quantity runs to a few thousands, or millions!*

*We'll prove that you can save 30% to 70% on your cost of small parts and our work won't cost you one red cent! Just tell us, "Yes, we use small machined parts that look like these." We'll take it from there! Contact your nearest Milford plant today!*



**MILFORD RIVET & MACHINE CO.**

MILFORD  
CONN.

NORWALK  
CALIF.

ELYRIA  
OHIO

AURORA  
ILLINOIS

HATBORO  
PENNA.





George T. Baum, Construction and Service Manager of Carrier Corporation, tells why he's . . .

## The man who raced the thermometer!

"This summer really put the heat on us," says Carrier Corporation's George Baum.

"Take a phone call we got from Chicago: refrigeration machinery stopped — and the mercury going up on 70 tons of expensive beef! Or a theatre is without its air conditioning; a laboratory's vital supply of penicillin is in danger.

"We raced those rising thermometers — and beat them — with Air Express!

"To back up our local stock depots, we maintain one complete inventory of over 15,000 different parts in Syracuse.

From May to September, Air Express handled 15 to 20 shipments a day for us, from a 1 oz. gasket to a 900 lb. rotor.

"With more Carrier air conditioning and refrigeration in service than any other make on earth, Air Express plays an indispensable role in preventing emergencies — and in meeting the inevitable few.

"Yet the average shipment costs *least* by Air Express. 25 pounds from Rochester to Chicago, for instance, is \$5.65. That's \$1.20 *less* than the next best price for any air service — and Air Express service can't be beat!"



# Air Express



GETS THERE FIRST via U.S. Scheduled Airlines

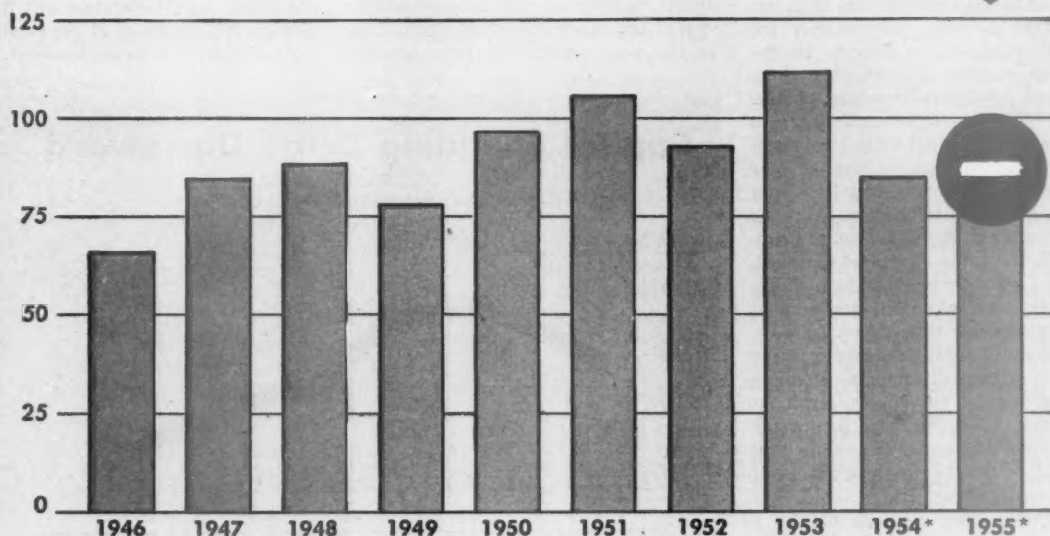
CALL AIR EXPRESS . . . division of RAILWAY EXPRESS AGENCY



## Steel Production:

Ingots, Millions of Tons

Next Year — As Good or Better



Data: American Iron & Steel Institute.

\*Business Week Estimate

©BUSINESS WEEK

## Question: How Much Better?

Steelmakers generally agree that their business will improve during the fourth quarter and in 1955. But they are as competitive in market forecasts as they now are in the market place.

Estimates of future business range from only slightly above present levels to healthy boosts of as much as 20% or 30%. This week, the American Iron & Steel Institute estimated output at 1.5-million tons, or 62.9% of capacity. Some steelmakers figure that the operating rate in the fourth quarter will average 70%. Others see it zooming past the 80% mark. The range of estimates for 1955 cover the same sweep.

• **Operating Drop**—Any of these predictions represent quite a switch from the gloom that was hovering over Pittsburgh recently. Steel company executives were not feeling so good, even though most were still making money at lower operating rates. Summer plant shutdowns had turned out to be more

widespread this year than anticipated. They were enough to pull steel down below a 70% operating rate, which everyone had hoped was the real bottom. For a few weeks in May and June, steelmen thought their estimates were right. But July plant vacations sent the operations figure skidding to a low of 60%.

That wasn't all; the auto plants began getting ready for new model changeovers. Detroit's action this year was keenly felt because car makers are bunching their model changes closer together than they have for a long time. Also, the competitive auto market is causing all manufacturers to do some pretty extensive alterations, which probably means a longer downtime on the auto assembly lines. And that, of course, means less steel is needed—for a while at least.

However, the steel companies are counting on a smart rebound in automotive buying fairly soon. It didn't

fatten up in September, as some steel salesmen had hoped. But October holds the promise of an uplift. This is because the scheduled output of new cars in the remaining months of 1954 looks something like this: September, 275,000 units; October, 350,000; November, 400,000; December, 500,000.

• **Indicator**—If the auto industry, usually steel's biggest customer, sustains those levels into 1955, it promises another year about as good as this one with 5-million cars being produced and sold.

The more conservative market estimators in steel doubt if 1955 auto output will be as good as 1954; others, however, think it may be even better. Again, competition rears its head. Those who are getting a bigger share of the auto market today are more optimistic. Those who may be losing some of this business incline to be more pessimistic.

Construction has been the No. 1

buyer of steel this year, if you include contractors' products, such as plumbing and hardware, destined for construction. Direct shipments of steel for construction—exclusive of oil, gas, and railroad construction—and steel for contractors' products totaled 5.6-million tons in the first seven months of 1954, or only 1.3% less than a year earlier. Even so, steelmen are unhappy at the way aluminum has crowded them out of the market for metal-clad building walls. On the other hand, they feel pretty good about getting back the market they once lost to aluminum in the farm roofing field.

• **Prop**—The oil industry has been another 1954 favorite. It certainly has kept the pipe makers happy. In the first seven months of 1954, the oil industry had about 3-million tons of steel shipped to it. On some needs, there is less frantic demand, with the result that some oil and gas jobbers are now buying close to delivery and have quit ordering on a quarterly basis. For one thing, the new Republic Steel Corp. pipe mill, the Lone Star Steel Co. mill, and the Colorado Fuel & Iron Corp. mill made some important new sources of supply available this year.

But allocations still continue by some producers of large-diameter pipe selling direct to big oil companies. It looks certain that 1954 will be a record oil-well drilling year and chances are that 1955 will be another high-volume year for oil-country goods.

Containers have proved to be a strong-selling steel product this year, showing the only important plus over 1953 besides construction. Here again, steel has been doing a competitive selling job with some obvious success against other types of containers, including glass, wood, and plastic. Container customers bought 3.5-million tons of steel in the first half of 1954, compared to 6-million tons in all of 1953.

• **Slump Area**—One area where business has slumped considerably is that of ordnance and other direct military shipments. In 1953, shipments rose to 2.7-million tons, the highest for any peacetime year. Steel mills will do well if they ship more than 1-million tons in all of 1954. The big dropoffs are in shell casings, which this year freed more billets for seamless pipe, and in military vehicles, including tanks.

Despite some outcries about foreign competition, U.S. mills have maintained a good volume of export business. Total shipments in the first six months amounted to 1.2-million tons, only slightly below the rate maintained last year. One company's exports, however, are now running at about 7% of its total mill output, while exports have accounted for as much as 12% of total business since Korea. This explains why

several steel executives have criticized further aid to foreign steel competitors, such as a pending proposal for an Export-Import Bank loan to Brazilian National Steel at Volta Redonda.

• **Appliances Barometer**—Sheet producers are still wondering how the appliance business will shape up next year. Most estimates favor volume around the 1954 level, which is down about 20% from 1953. Last year's fat volume reflected record sales of home freezers, clothes dryers, and other appliances.

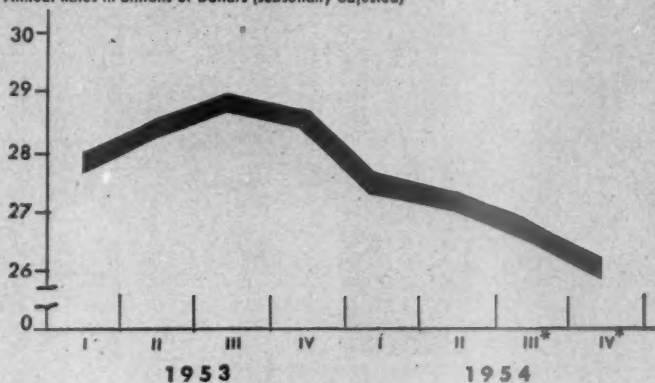
Sharply reduced volume of sheet business this year has prompted sheet producers to take an unusual competitive step at the expense of steel warehouses. In the past, warehouses have handled

a fair slice of business on slit sheets, which are put through a slitter in order to get narrower widths. It was the kind of business mills were not inclined to fool with so long as they had heavy mill shipments of standard widths. In the past few weeks, however, almost all sheet makers started to sell slit sheets.

There is no doubt that steel company executives, particularly those in sales, are watching for any opportunity to boost business. It makes no difference whether competition comes from another steel mill, another material such as aluminum, or from a warehouse. Prices generally are holding firm since the latest price boost two months ago. But everything short of price-cutting is now in order if it means business.

## Capital Spending Drifts Downward . . .

Annual Rates in Billions of Dollars (seasonally adjusted)



## . . . With the Big Drops in Manufacturing, Railroads

	1954 Billions of Dollars, Seasonally Adjusted, Annual Rate			
	1st Quarter	2nd Quarter	* 3rd Quarter	* 4th Quarter
Manufacturing	\$11.87	\$11.37	\$11.23	\$10.74
Mining	.95	1.06	1.05	1.05
Railroads	1.06	.92	.80	.65
Transportation (other than rail)	1.47	1.36	1.39	1.38
Public Utilities	4.29	4.43	4.30	4.11
Commercial & Other	7.84	8.05	7.98	8.03
<b>TOTAL</b>	<b>\$27.48</b>	<b>\$27.19</b>	<b>\$26.75</b>	<b>\$25.96</b>

\* anticipated

Data: Dept. of Commerce; Securities & Exchange Commission.

©BUSINESS WEEK

## Is It a Danger Sign?

Business spending on plant and equipment in 1954, as the chart above shows, has so far kept within shooting distance of 1953's banner levels. But the new estimate of fourth-quarter outlays, just released by the Commerce

Dept. and the Securities & Exchange Commission, indicates that the small gap between 1953 and this year's figure will broaden.

The fourth-quarter estimate forecasts that capital spending will drop to an

annual rate of \$25.96-billion. If that figure turns out to be correct, it will mean a decline of \$800-million from the third-quarter rate and \$2.6-billion below the actual outlay in the fourth quarter last year.

• **Second Largest**—Even with this projected drop in the fourth quarter, capital spending for the year will total around \$26.8-billion. That is about 6% under the 1953 figures, but still well above any other year in our history.

Actual spending may still bring the total up. As a matter of fact, most government experts are not so gloomy as their own estimates. They point out that the quarterly figures are not always dependable. In fact, they say, this applies particularly to fourth-quarter estimates.

• **Profit Factor**—As they explain it, all quarterly figures are seasonally adjusted. But in the fourth quarter, business has shown a tendency to wait until their profit picture is clear before increasing definite spending commitments. Ever since 1949 at least, business has been adding to the experts' estimates in the fourth quarter, and this may be the case again.

You can also take some comfort from the fact that while outlays on manufacturing durables are down some 10% from the third quarter to the fourth

quarter, nondurables have held almost even. Most authorities believe that most of the drop in durable investment results from the long stickiness of consumer durable sales. And they feel that the new signs of renewed consumer interest around the country may bring an investment upturn.

• **Heading Down**—But there are also some signs that point the other way. After reaching a peak of \$28.92-billion in the third quarter of 1953, capital spending has slowly but steadily declined. The steepening in the fall in the last quarter of the year may mean generally lower levels in 1955.

This may be true even if the estimated decline in the fourth quarter be nothing more than the reflection of a more cautious attitude by businessmen. Good profits may bring an increase in investments during the final three months of the year. This would make a smoother pattern of decline, but it would take a big turnabout in consumer attitudes to bring a rise in next year's spending.

On the basis of the fourth-quarter estimate of investment in new plant and equipment, then, the 1955 forecast is a healthy but still lower level of spending—with outlays for capital goods a big prop under the economy, rather than a big stimulus.

## It's Competition

**Economist Kaplan's new book defends big business, says it hasn't grown any faster than the economy.**

Businessmen have always been puzzled when economists talk about the decline of competition. In their world of close pricing, cost cutting, and risky new products, they see competition as stern as ever.

Now an economist has come to their side. A. D. H. Kaplan of Brookings Institution has written a short book addressed mostly to other economists, in which he makes a case for competition as it exists in this era of industrial giants.

In his book, titled *Big Enterprise in a Competitive System*, (Brookings Institution, \$4), Kaplan agrees that the new competition is not the kind described in classical economics. But he argues that it is just as lethal, in its way, for any business that does not keep pace with consumer needs and desires. To make his point, he cites obituary statistics among big business.

And for big businesses that do survive, Kaplan has a word of praise. With aluminum and automobile tires as typical examples, he argues that the kind of competition that comes from big enterprise is still subject—in the long run—to the iron rule of the consumer.

• **Answer**—Kaplan believes that the new competition has met the fundamental challenge of a free enterprise economy—to supply consumers with an ever-growing number of free choices in the market. Though most tires are produced by a Big Four—for example—consumers can pay anything from \$7 for a recap to \$45 for a premium tire of popular size; the general trend of tire prices has been below that of other industrial products; and tire mileage has more than doubled in the past 25 years.

With all the rise of big business in recent years, Kaplan cannot detect any sign that it has grown faster than the economy as a whole. He says corporations still produce a little over half the national income, as they were doing in 1929. And the share of that income produced by the largest corporations has declined a bit.

• **Challenged**—Kaplan's belief that small business is holding its own is challenged by a new report from the Small Business Administration. Administrator Wendell B. Barnes told Pres. Eisenhower that "small industry in important industries is not faring well."

## Big Coal Producer Gets Bigger

**Pitt Consol had urged mergers to strengthen its competitors. Now another company falls into its lap.**

The coal business isn't quite tough enough yet for the wave of industry-strengthening mergers that was expected earlier (BW-Jul.10'54,p31). Instead of putting together a strong competitor for Pittsburgh Consolidation Coal Co., the smaller companies are succeeding only in dropping into Pitt Consol's lap.

This week, stockholders of Jamison Coal & Coke Co. were advised by their directors—and it's a closely held company—to accept a \$10-million offer from Pitt Consol. The Pitt offer came only after collapse of merger talks between Jamison Coal & Coke and Rochester & Pittsburgh Coal Co.

• **Need for Mergers**—Pres. George Love of Pitt Consol had taken a leading part in the Jamison-R&P matchmaking this summer. Love had been preaching the need for coal companies to merge.

By merging he argues, companies can pool their facilities, keep their low-cost mines operating while high-cost pits are closed. This can save as much as 75¢ a ton.

However, Jamison and R&P interests couldn't agree. Pitt Consol itself made

a bid then to Jamison, whose only operating mine in northern West Virginia produces up to 1-million tons a year. This production would just replace the output of three old mines that Pitt Consol has closed recently in the same area. Pitt needs production on the B&O RR to meet long-term commitments, and the Jamison mine is on that railroad. Jamison also has a metallurgical-coal mine, now closed, near Greensburg, Pa.

• **Not Hungry Enough**—Earlier, another move toward consolidation of the industry failed when legal obstacles wrecked the proposed merger of Truax-Traer Coal Co. of Chicago with Southern Coal Co. and Sinclair Coal Co.

Meanwhile, the bituminous coal executives are going ahead with plans for a meeting Sept. 23 and 24 in Cleveland, including reports on how coal producers can best merge. Oldtimers in the industry don't expect much but talk, though.

"They're not hungry enough yet," one man said. "As long as some of these producers have a dime, they'll back off from facing reality."





The Florida West Coast sees this new Sunshine Skyway Bridge as a street paved with Gold—Tourist Gold. Until the \$22.5-million toll bridge was opened on Labor Day, motorists were pocketed on the St. Petersburg peninsula. Now they can continue south along the Gulf Coast. What this means to local business is told by the men pictured on these pages.



DEVELOPER A. B. Edwards, 80-year-old real estate man, says: "The bridge will open nearly 200 mi. of sparsely settled land, from St. Pete south, to the same kind of development the East Coast got 15 or 20 years ago." He came to Sarasota in 1885.

## A Bridge for Tourists



DINNER PARTY at Lakewood Country Club, St. Petersburg, climaxed the city's four-day celebration of the bridge opening.



MAYOR Warren Tresca of Palmetto, insurance agent, thinks his town will benefit most. The bridge is on the city's doorstep. Says Tresca: "We ought to double our population by 1960." Palmetto now has 6,000 in the off season, 10,000 in winter.





**EDITOR** Earl Eastwood of the Bradenton Herald expects tourist trade to build up fast, requiring a lot of construction: motels, restaurants, beach houses, etc. "But I think," says Eastwood, "we've already gotten some of the best results of the bridge—a million dollars worth of publicity. For the rest, I'll wait and see." Meanwhile, he urges Bradenton to start building facilities.

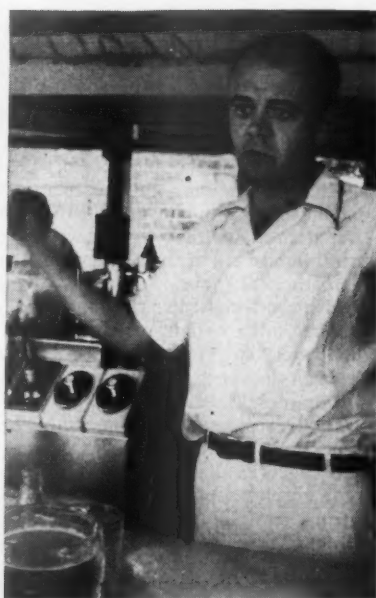


**MAYOR** Ben Hopkins of Sarasota, a Chrysler dealer, is sure Sarasota will benefit greatly. Like Eastwood, however, he thinks the bridge tolls (\$1.75 per car and up to \$5 per truck) are too high. "You can't take a truckload of produce across the bridge to St. Pete and still show a profit," he says. It's 50 mi. to drive around the bay.

## sts -and Florida Land Speculators



**UTILITY MAN** William J. Clapp, president of Florida Power Corp., headed the Spans Across the Bay Committee that arranged the celebration. He figures that growth in a 25-mi. radius of St. Petersburg will run 20% to 30% above normal.



**SKEPTIC** E. R. Adams, owner of the Beachcomber Restaurant between Bradenton and Sarasota, says: "I don't see how it will make all the difference in business that the experts say it will. But the state has spent \$22.5-million, so I must be wrong."

Ever since Florida was invented, motorists who wanted to drive south from St. Petersburg have had a grim choice. They could wait, maybe hours, for an overworked ferry that took most of an hour for a 10-mi. crossing of lower Tampa Bay. Or they could drive back up the peninsula and around the bay—a 50-mi. trip, much of it through city traffic. Most, therefore, did neither and stayed out of the area.

On Labor Day, Gov. Charley Johns and a host of invited dignitaries dedicated the Sunshine Skyway Bridge (pictures), and the state's Gulf Coast hailed the second coming of the Florida boom. Ten West Florida counties find themselves suddenly on a direct route from here to yonder, and they have a fair shot at the state's 5-million tourists—and nearly \$1-billion of spending money.

• **Big Deal**—The bridge itself is one of the Seven Wonders of Florida. It crosses more open water than any other bridge in the world except the Bay Bridge in San Francisco; it beats out the Chesapeake Bay Bridge by more than 500 ft.

Tolls are expected to return the state's outlay of \$22.5-million at the rate of \$1-million a year. But that's only the small change. The big money

will be the development of 200 mi. of neglected coastal beaches from Palmetto, southern end of the bridge, clear to the Everglades.

If the promoters are right, this stretch of Florida is due for a boom that could rival the fabulous 1920s. Folks who used to visit St. Petersburg, then cut directly to the East Coast, will now find it easy to continue down the Gulf shores. The promoters think they'll take advantage of it.

- **Virtues**—Before long, say the developers, people up north will know all about the advantages of the semitropical Gulf region: the warmer winters, the quieter waters, the wealth of game fish, the reliable sunshine. Temperatures average year-round in the middle and upper 70s; the season of severe frost runs only from Dec. 22 to Jan. 20.

- **Cashing In**—Already, land values are rising, especially from Palmetto, near the southern end of the bridge, to Naples, where the Tamiami Trail cuts across Florida to the Atlantic coast. At St. Petersburg beach, good waterfront property that sold for \$50 a front foot a while back is now getting as much as \$300 a foot. In Fort Myers, the same type of land brings up to \$400.

Even so, there's a lot of open land between towns, and you can buy it by the lot for \$25 down and \$5 a month. In places like Bonita Springs (pop. 500) in lower Lee County, the finest beach property goes for as little as \$20 a front foot. Or you can buy an island in Pine Island Sound for \$100, if you don't mind mosquitoes and the absence of fresh water.

Big developers are moving in, though. William K. Vanderbilt has a multi-million-dollar project to turn 35,000 acres of wasteland into a resort near Punta Gorda. Farther down the coast, J. Bradley Streit, board chairman of Chemical Research Corp., is converting 78,000 acres of cattle land into a super resort planned to rival Miami.

- **Ghosts of the Past**—Developers count it a piece of luck that often, when they're inspecting a tract for building outside towns, they find sidewalks, hydrants, sewers, and water mains under the jungle of tall grass and palmettos. Far from being frightened by these skeletons of Roaring Twenties crashes, they exult that many of the pipes and hydrants are still usable.

Even to cope with a normal tourist influx—a fair share of Florida's resort trade—the West Coast below St. Petersburg will have to build a lot of facilities. There's only one 20-room motel anywhere near the southern end of the new bridge, and none closer than 5 mi. from the northern end. Farther down the coast, there's barely enough tourist accommodation for normal winter trade—nowhere near enough for what the region hopefully expects.

## Labor Supply: It's Looser Now

Some skills are still scarce, especially engineers, machinists, secretaries. But employers can pick and choose more than they could for many years.

"The more the skill, the less the supply" is still a sound axiom in sizing up the nation's manpower supply. Reports from all over the country make it plain that you still have to hunt furiously if you need the most highly trained engineers and machinists and the most discreet and efficient secretaries.

Aside from this generality, though, BUSINESS WEEK reporters, checking up on the state of the labor market, found things changed quite a bit since a year ago or even six months ago. That's official, too: The Labor Dept. lists no labor shortage areas now—a year ago there were five (Hartford, Conn.; Battle Creek and Saginaw, Mich.; Joliet, Ill.; Wichita, Kan.).

"Employment is in the best balance we have seen for years," says the personnel director of a large West Coast company. "We have no trouble finding qualified workers—even engineers—but we have openings for qualified people who happen to wander in."

- **Won't Travel**—Generally and nationally, people tend to stick closer to their jobs these days. They see unemployment up, employers getting more choosy, differences disappearing among regions and among industries. They have less incentive to shop around.

In California, state employment offices this summer got wholesale cancellations of advance orders for workers to replace the people who usually spend their vacations shopping for better jobs. Employees don't know if their workers did much shopping-around this year, but if they did they weren't very successful—almost to a man they returned to their old jobs.

- **Should Travel**—Actually, the city by city reports indicate that perhaps not enough people are looking for jobs outside their localities.

As an example, take the situation of engineers. Disregarding the short-term effect of auto plant shutdowns for model changeover, Detroit reports engineers in surplus supply, with employers picking and choosing to get the best of the new crop of graduates. Yet cities as nearby as Cleveland and Pittsburgh report a severe shortage of engineers.

In the same way, Midwestern cities particularly have an unemployed surplus of former farmhands who filled a marginal place in war industries, while Texas farms and dairies are vainly seeking labor. In the Houston area, the

farm labor shortage is second only to the scarcity of clerks-typists who are willing to work for \$200 a month or less, instead of trying to take on the full plumage of secretaries.

Then too, Worcester, Mass., reports a surplus of skilled toolmakers and machine operators. Migration isn't recommended yet, however—the surplus is small and probably temporary. But probably no other part of the country could report 10 applications for one toolmaker job, or 15 machine tool expert operators for one job as general maintenance mechanic.

In the longer run, New England employment managers see a chronic shortage of machine tool operators. They blame it on the wartime policies of the government and the unions that narrowed the wage gap between the semi-skilled and the skilled. Rather than embark on a long apprenticeship in a skilled metals trade, they say, a man drives a truck for slightly less money.

- **Shortages**—Philadelphia's list of scarce workers is typical of the country as a whole, though it's longer than most. In order of scarcity and demand, these categories are: engineers, secretaries and stenographers, medical technicians, registered nurses, social case workers, tool and die makers, machinists, machine tool operators, and typists.

Taking this list as a base, you can quickly revise it to fit other cities. Chicago puts secretaries and stenographers at the top of the list. So does Worcester. Los Angeles adds specialists for its aircraft industry. Detroit wants bookkeepers and business machine operators as well as secretaries. Several areas add draftsmen. Well-qualified teachers are scarce everywhere.

At the other end of the occupational scale, there's one other shortage that's widely reported: People who will take hot, dirty, or unskilled jobs for little pay. A Memphis reporter diagnoses this problem: "When you get down to \$20 or \$25 a week pay in, say, a hot laundry job, the help realizes they can get nearly that much in unemployment compensation. . . ."

Consequently, says the Memphis reporter, the place where applicants outnumber jobs most heavily is smack in the middle of the job range, in neither the low-pay nor the high-skill vocations.

- **Choosy Employers**—All in all, labor shortages are more selective than they have been in years, and so are employers.

In bulk, engineers are scarce almost everywhere. In more specific terms, however, you'll find the oil industry looking chiefly for geologists and chemical engineers; aircraft for electronics and aerodynamic specialists; most industries for mechanical engineers and experts in plastics.

You'll also find employers who feel that the engineers and technicians are overspecialized. That's true, too, among machinists and tool and die makers.

"We can get people who know how to run a lathe," says the foreman at a southern machine shop, "but machinists who really know their way around a shop are scarce. Now all you find is a young fellow who has been trained to make a part of something on a machine and who doesn't know anything else."

That's a legitimate gripe from a smallish machine shop that needs all-round men, not specialists. But the choosiness of employers comes to light less understandably in, for example, the secretarial field. "We still get calls from fussy executives who want the kind of personal secretary you see in the movies," says a Memphis employment agency manager. "We'll even get a call for a girl with red hair, sometimes just for one that's pretty."

Some employers can be even fussier and can get away with it. The manager of a clothing store in the East advertised for a stockroom man, got 50 applicants, turned them all down, re-advertised, got another 50, and picked exactly the man he wanted.

• **Military Draft**—Employers have evidently learned to live with the military draft. It is rarely cited as a cause for a manpower pinch. In fact, some areas report more discharged servicemen looking for jobs than men being pried loose from jobs by the draft. Instead of worrying about the draft, many employers are more concerned over the number of former employees who have finished their service and now want their old jobs back.

Most companies outside the chief defense industries are chary of asking deferments for their workers, though some are bitter about losing men on whom they have spent a lot of time and money for training. In Pittsburgh, employment agencies say employers don't even ask about draft status of job candidates these days—they'll take their chances of getting the men back after military service.

However, draft boards in the aircraft region of Southern California are reported so tough on deferring key people that the Aircraft Industries Assn. has put its committee on selective service to work for the first time since the war. In the whole U.S., fewer than 25,000 men are deferred because of occupational specialties.

# Power Deal Ready for Signing

AEC and TVA are reported in agreement on carrying out Eisenhower's order to buy power from Dixon-Yates syndicate for Paducah atomic plant.

Pres. Eisenhower's formula for curbing the "creeping socialism" of the Tennessee Valley Authority appears to have passed its crucial test. TVA and the Atomic Energy Commission last week reached "a meeting of the minds" on the President's order to inject private power into TVA lines for delivery to AEC's Paducah (Ky.) plant.

TVA had wanted to expand its steam-electric capacity to serve the new AEC plant. Pres. Eisenhower—through the Budget Bureau—ordered AEC instead to sign a contract with a private utility. The result was a fierce debate that tied the Senate up with a 13-day filibuster late in the last session and raised federal vs. private power as a prime campaign issue for this fall's election.

Then came last week's joint announcement by Brig. Gen. Herbert D. Vogel, new chairman of TVA, and K. D. Nichols, general manager of AEC, that they had come to an agreement. The announcement clearly foreshadows the signing of the disputed contract.

• **Private Power Plant**—The contract will be between AEC, TVA, and the Mississippi Valley Generating Co., formed by Edgar Dixon, president of Middle South Utilities, Inc., and E. A. Yates, board chairman of the Southern Co. The new combine is to build a \$107-million power plant on the west bank of the Mississippi River at West Memphis, Ark., to feed 600,000 kw. of power into the TVA system.

Republican idea behind the contract is this: Let a private supplier put into TVA at Memphis the same amount of power that TVA is to supply AEC at Paducah. This, the Republicans figure, is the same as having a private syndicate supply AEC's Paducah plant, 200 mi. away.

• **Opposition**—GOP politicians soon discovered, however, that they had against them: (1) three of the five members of AEC, (2) two of the three members of TVA, (3) a big band of public-power congressmen, both Democratic and Republican.

These realities came as a surprise to the businessmen-administrators of the Eisenhower regime. Budget Director Joseph Dodge, since retired to banking in Detroit, saw the issue simply as finding a way for private industry to contribute to AEC's power needs in the TVA area, with as little pressure on the public debt as possible. Through-

out the debate, the Administration held to this line.

Despite all kinds of hullabaloo raised by opposition to Dixon-Yates, the President and his Budget Bureau may have bulled the thing through. Their biggest victory was scored when the Senate and House included the specific deal when they passed new atomic energy legislation.

This, nevertheless, left the question: Would TVA or AEC—or individual members of either—defy the President's direct orders and refuse to sign the contract?

Dissenting AEC officials would seem to have been silenced by hard-handed Chmn. Lewis Strauss—at least they haven't been heard from for some time. As of last week, on the other hand, two unsatisfied members of TVA had not yet come around to agreeing with the Administration. They were still studying the question in preparation for further talks with AEC. A little give-and-take was all that seemed to be needed to pave the way for signing before a new Congress comes to town.

• **Lively History**—The battle has been fought hard through all levels of Washington bureaucracy, with appeals to Congress from time to time. As an issue, TVA's expansion of power sources to meet AEC's increasing needs goes back further than most people realize. This chronology will help you to understand the ins and outs:

**Dec., 1952**—TVA asks 1954 budget approval of proposed \$90-million steam plant at Fulton, Tenn., 48 mi. north of Memphis.

**Jan., 1953**—Budget Bureau denies request, in line with latest no-new-starts policy on TVA power expansion. TVA Chmn. Gordon Clapp makes several subsequent attempts to thwart this policy.

Pres. Eisenhower's budget message says arrangements are being made to reduce TVA commitments to AEC and to provide growth for industrial, municipal, and co-op power systems in the TVA area through 1957.

**Dec. 2, 1953**—Budget Director Joseph M. Dodge suggests bringing additional private power to the AEC plant at Paducah, instead of the TVA power that had been contracted for.

**Feb. 25, 1954**—Dixon and Yates team up to submit proposal to supply AEC with power to be delivered over TVA lines. Government records show both companies had previously offered to



sell TVA power in the Memphis area.

**Apr. 10**—Revised Dixon-Yates offer, based on studies made by AEC, Budget, and FPC is submitted to AEC. TVA enters studies at this point, helping to prepare a joint analysis of the revised proposal, compared with costs of TVA power plant. AEC commissioners Henry D. Smyth, Eugene Zuckert, and Thomas E. Murray complain about plans to involve AEC in a private power contract.

**Apr. 28**—New York group headed by Walter von Tresckow, industrial consultant, notifies AEC it desires to submit a proposal in competition with Dixon-Yates. Von Tresckow names Gibbs & Hill, of New York, as engineers. Project involves steam plant at Fulton.

**May 27**—AEC receives von Tresckow proposal, after canceling previous appointment on learning Gibbs & Hill had withdrawn as von Tresckow engineers.

**May 27-June 16**—AEC, Budget, and TVA discuss von Tresckow proposal. AEC rejects it.

**June 16**—Budget Bureau directs AEC to proceed to negotiate contract with Mississippi Valley Generating Co., formed by Dixon-Yates combine.

**June-July**—Congress debates issue. Senate public power bloc holds up adjournment two weeks.

**Aug. 18**—Budget Bureau directs TVA to begin negotiations with AEC, essential to carrying out Dixon-Yates arrangement with AEC.

**Aug. 26**—TVA directors Harry A. Curtis and Raymond R. Paty demand "clarification" of all Dixon-Yates contract details. Otherwise, they warn, TVA won't negotiate.

**Aug. 27**—Chmn. W. Sterling Cole of Joint Congressional Atomic Energy Commission indefinitely postpones scheduled hearing on AEC request to waive required waiting period to permit signing of Dixon-Yates contract. Democratic opponents of the deal had been scheduled to appear at Sept. 2 hearing.

**Sept. 1**—Vogel takes over as TVA chairman. He makes it known immediately that he favors Dixon-Yates as one-shot deal, that TVA must carry out directions of Congress which authorized contract.

**Sept. 2**—Vogel and AEC general manager Nichols announce "meeting of the minds." AEC forwards to TVA staff data requested by Curtis and Paty.

**Sept. 7**—Curtis, still unconvinced, says TVA and AEC staffers are studying contract details.

• **Now Politics**—The end of the fuss over Dixon-Yates is not yet in sight. Democrats, led by their national chairman, Stephen A. Mitchell, have vowed to keep the issue alive through the fall elections. What that will accomplish, only the voters can tell.

## Slim Chances

**New England college seniors say they are looking elsewhere for jobs, convinced their own economy is laggard.**

New England prides itself on one irreplaceable natural resource: brains. Its concentration of colleges and universities has always attracted bright young men, and in the past, its industries have offered them openings but now New England businessmen have suddenly begun to wonder if their pool of business brainpower will keep on filling itself in the future.

One thing that alarms them is a survey of 907 college seniors in 10 New England schools, conducted by 23-year-old graduate student Morton Weintrob of Brookline, Mass. Weintrob found that most upcoming New England graduates:

- Feel business opportunities in New England are severely limited, and will look elsewhere for jobs when they get out of school.

- Consider New England businessmen woefully wanting in fresh ideas and slow to respond to new ways of running their businesses.

- Believe that New England lags behind the rest of the U.S. in economic development and would be the first to be hit by a recession.

- Jolt—For New England businessmen, stinging under the loss of once strong textile industries and feeling the pinch of new economic conditions (BW—Jul. 10'54,p78), the news that young brains are turning away from New England marketplaces came as a surprise.

Already, the New England Council, a regional development organization, has launched a promotion campaign to stimulate more aggressive recruiting of college graduates by New England businessmen. "We believe New England is going to have real need of its graduates' talents and services," says Walter Raleigh, council vice-president. "We still think we can provide them with the job opportunities they will be seeking."

- **Results**—Findings of the survey—sent to seniors at Bates, Bridgeport, Brown, Brandeis, Boston University, Dartmouth, Merrimack, New Hampshire, Quinnipiac, and Lowell Textile College—were projected to reflect a cross-section of New England college thinking. Of the 907 seniors quizzed, a majority—60%—were New Englanders, about a quarter were from Middle Atlantic states, the rest from other parts of the country.

Weintrob believes student criticism sharpened the farther their home dis-

tance from New England and the lower their income bracket. But even New Englanders weren't too kindly in their views.

How did they feel about New England's general business health and investment possibilities? Declining, said a good deal more than half; unprofitable, said nearly three-quarters. While many believe New England was well-off 30 years ago, fully a third thought it would be worse in the next 30 years.

- **Pool Magnets**—Weintrob, a salesman's son who plans a public relations career outside New England, found students hit hardest at local businessmen for what they considered reactionary thinking. Part of this feeling, he believed, was rooted in the fact that many considered local communities were doing a poor or only fair job of attracting fresh industry.

While New England reaction to many of Weintrob's findings was violent, one local bank president said there wasn't too much in the report to get excited about. "An older area will always have less appeal to certain types of young men," he said. Said another executive: "It's our own fault. Instead of promoting our own virtues, we criticize. I'd say the newspapers are to blame."

## Ford Clears Up Stock Sale Rumor

Ford Motor Co. officials last week admitted publicly for the first time that sale of Ford stock to the public is in the offing. In doing so, they were merely stating openly what the Ford family has felt privately for some time (BW—Jul. 3'54,p32).

What company spokesmen in Detroit said was that the Ford company was not considering public sale; that the Ford Foundation has been studying sale of some of its stock. In London, Henry Ford, II, said the same thing and later in Paris went a step further to endorse the idea.

Reporters trying to drum up news in a dull week—not much big auto news comes out of Detroit in the weeks just before new models are shown the press—extracted the statements from Ford.

The company still isn't willing to say anything about the real problems that public sale of stock will present: (1) what to do about voting rights; and (2) how to revamp an organization that has been accustomed for 35 years to the right of almost complete privacy that only private ownership confers.

Both of these difficulties will take some handling. But to the Fords, they are offset by the anticipated need for more capital, and the need of the Ford Foundation to diversify its holdings.



# How to choose your steel supplier

Now that we are again in a period of plentiful steel supply, production and fabricating departments can again place first emphasis on higher standards of materials and service. And buyers can choose their suppliers on the basis of character and ability to serve.

With this in mind, the following check list may prove helpful.

## **FIRST, on the character and capacity of the supplier:**

- ☐ Is the supplier a good dependable company with a wide range of steels actually in stock so I can take full advantage of quantity differentials and save time in ordering and other office details?
- ☐ Am I establishing a business relationship with a company which will be able and willing to supply me with steel at fair prices next month or next year—even if demand should again exceed supply?
- ☐ Can I return material if it has not been processed and I find that I can't use it?
- ☐ Can I count on the supplier to settle any reasonable difference of opinion to my satisfaction? Is the supplier customer-minded?
- ☐ Does the supplier have, not only the interest, but also the ability to carry my account in times of national stress or possible financial difficulty?

## **SECOND, concerning the material:**

- ☐ Is the steel of *known, uniform quality* so that I can depend on good performance and can be sure of getting steel of the same uniform quality next month or next year?
- ☐ Is the steel accurate as to size or gauge so that no time is lost in extra processing? Is scrap minimized or eliminated?
- ☐ Is the steel in good condition? Has it been carefully stored, handled and shipped so that it will arrive ready for use?

## **THIRD, concerning the service:**

- ☐ Can I depend on clean accurate cutting so that the steel will be immediately available for use without further cutting or preparation?
- ☐ Can I be sure of correct weight?
- ☐ Will the steel be delivered when promised so I will get it when I need it, even on very short notice?

No source is perfect, and we certainly do not pose as such. However, we have been serving industry—with good sound steel from stock at fair prices—for over one hundred years. And we have been working with our customers through the years in many other ways from helping with finances to solving problems of fabrication and inventory control.

And it goes without saying—we stand ready to serve *you* well whenever you call.

*Principal products: Bars, structurals, plates, sheets, tubing, alloys, stainless, reinforcing, machinery & tools, etc.*

## **RYERSON STEEL**

JOSEPH T. RYERSON & SON, INC. PLANTS AT: NEW YORK • BOSTON • PHILADELPHIA • CHARLOTTE, N. C. • CINCINNATI • CLEVELAND • DETROIT • PITTSBURGH • BUFFALO • CHICAGO • MILWAUKEE • ST. LOUIS • LOS ANGELES • SAN FRANCISCO • SPOKANE • SEATTLE

the lower  
New  
in their

ew Eng-  
and in-  
ng, said  
unprofit-  
While  
well-off  
ought it  
0 years.  
a sales-  
relations  
found  
business-  
ed reac-  
feeling,  
fact that  
munities  
r job of

tion to  
was vio-  
id there  
t to get  
will al-  
in types  
another  
Instead  
we criti-  
are to

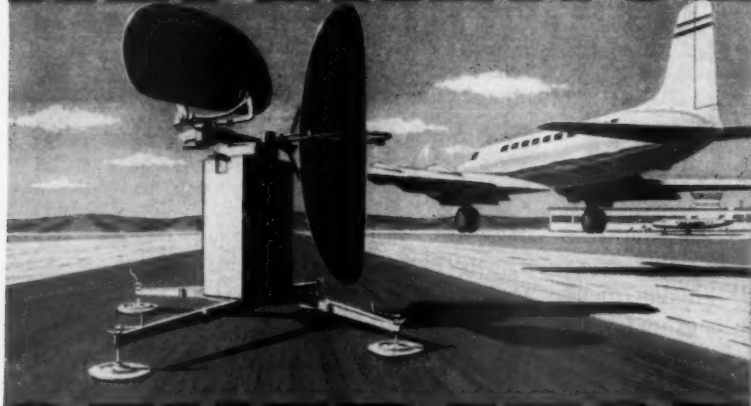
st week  
me that  
ic is in  
y were  
ne Ford  
ne time

in De-  
company  
le; that  
studying  
London,  
e thing  
further

news in  
to news  
eks just  
he press  
n Ford.  
g to say  
ms that  
ent: (1)  
ts; and  
ion that  
s to the  
cy that

ill take  
ds, they  
eed for  
ne Ford  
ings.

# REFERENCE



# GENERATOR

## for remote position indication

"Sixth sense" is provided by the midget generator whose rotor is turned by scanning or tracking radar.

How many applications for these precision electro-mechanical units! Any revolving shaft can be closely monitored through reference generator output in a closed loop control system.

OSTER Avionic Products conform to military specifications for altitude, high and low temperature, life, shock, vibration, humidity, and fungicidal treatment.

You can depend on Oster quality in rotating components for automatic control.



OSTER two-phase Reference Generator, Type 212055. Develops 40 volts, 35 cycles when driven 2100 rpm. Use it on rotary or rate indication applications.

### Other OSTER Avionic Products include:

- Special motors: Servos, Synchros, Drive Motors, Blowers and Fans for use with D-C and A-C supply voltages in common usage on aircraft and ground equipment.
- Synchro Generators, Control Transformers, Transmitters, Differentials, Receivers, Resolvers and Two-Speed Synchros.
- Tachometer Generators and Reference Generators.
- Aircraft Actuators, both linear and rotary.

Insure dependability...specify

**Oster**



FREE  
Catalog

John Oster Manufacturing Co., Avionic Division  
Dept. 459, Racine, Wisconsin, U.S.A.

Please send me your catalog of OSTER Avionic Products.

Name \_\_\_\_\_ Title \_\_\_\_\_

Firms \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

## BUSINESS BRIEFS

**Castle in the sky:** Undismayed by the New York Central's net loss in July, Chmn. Robert R. Young is talking airily of replacing Grand Central Terminal with what would be the biggest office building—and possibly the tallest—in the world. Young says such a building would extract revenue from the air rights above the terminal; he blames much of the terminal's \$24-million annual operating loss on taxes on the air rights. William Zeckendorf is being consulted on the project.

**5,000 miles nonstop** is the promised range of Douglas Aircraft Co.'s latest model of the DC-7. The plane can fly nonstop between most cities in Europe and the U.S.; Douglas says it should top all competition, including jets, "for the remainder of the decade."

The auto big three are named in a triple-damage suit brought by two former Hartford auto dealers who claim they were forced out of business by the manufacturers' fight on "bootlegging"—cut-rate sales of current model cars (BW-Mar.13'54,p52). The onetime unfranchised dealers ask the court to order the auto companies to sell them new cars freely.

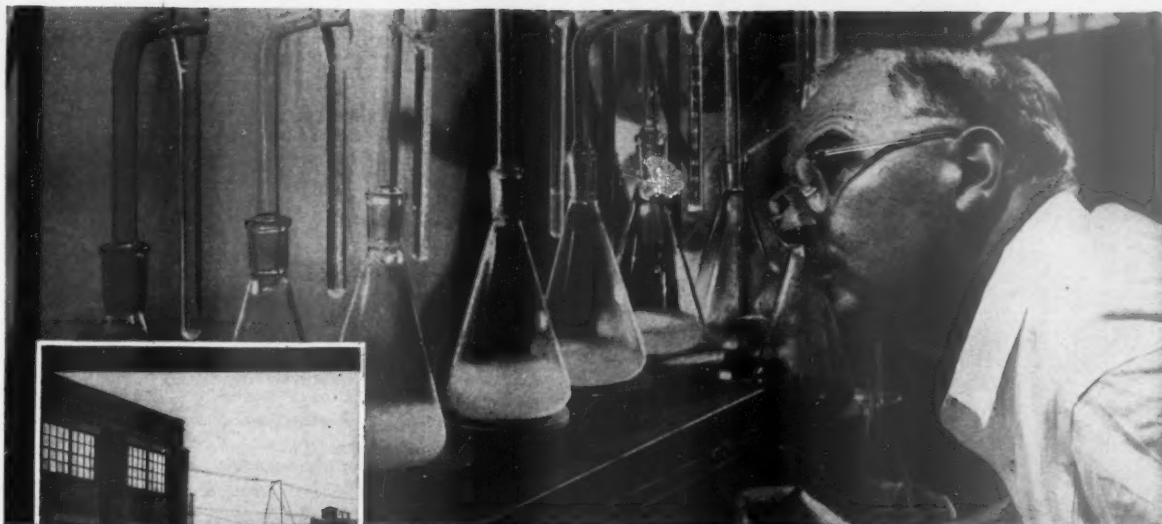
**Plenty of coffee** is in sight by mid-1955, the Agriculture Dept. reports. Meanwhile, the wholesale price of Maxwell House and Chase & Sanborn coffee was cut 5¢ more, bringing it down to \$1.07 per lb.

**Steel scrap futures** were actually traded for the first time this week on the Chicago Mercantile Exchange (BW-Aug. 7'54,p79). Top price for January delivery of best grade scrap was \$34 a ton, compared with an average \$30 a ton spot price in Chicago.

**Employment** continued to show mild improvement in August—though less than normal. The civilian labor force held about steady at 65.5-million, while unemployment fell off by 101,000 to 3,245,000. Normally, some 200,000 job seekers, mostly students, leave the labor force in August.

Factory employment showed a seasonal increase of 257,000 to total 15.8-million mainly recovery from July vacation shutdowns or slowdowns.

**A \$1-billion refunding loan** has been announced by the Canadian government. The non-callable bonds include 3½% maturing Oct. 1, 1979, and 2% maturing Oct. 1, 1957. Proceeds will be used to redeem Victory Loan bonds on Oct. 1.



**Rigid scientific testing** by experts insures uniform quality from traditional formulas in National Distillers' products.



**After slow, gentle barrel curing** the whiskey is taken from its warehouse prior to bottling.

**Only nature's finest crops** are selected as ingredients by National Distillers.



## Patience, Production and a pinch of genius...

Yes, patience first, because it's present at every step in creating National Distillers' products. Patience in selecting the choicest natural ingredients, as well as in their care and handling. Patience again while the actual distilling is done, and during the long, slow aging process.

Production, of course, is many things. Every year it involves the use of over 200 million bottles, \$2 million worth of paper for labels, bottle closures in the 100 millions, just to quote a few figures. But mainly, production is the art of the National Distillers' process—from strict adherence to traditional formulas to scientific bottling methods; from barrel curing to sampling and testing for rigid purity and consistency of product.

And presiding over means and methods is skill—skill touched with the genius of men who have made lifetime careers of producing the finest distilled spirits that money can buy. Some of these favorites are listed below.

But these products represent only one branch of National Distillers' diversified activities. Others include the production of petrochemicals, solvents, intermediate and finished chemicals—all serving the nation's consumer and industrial needs.

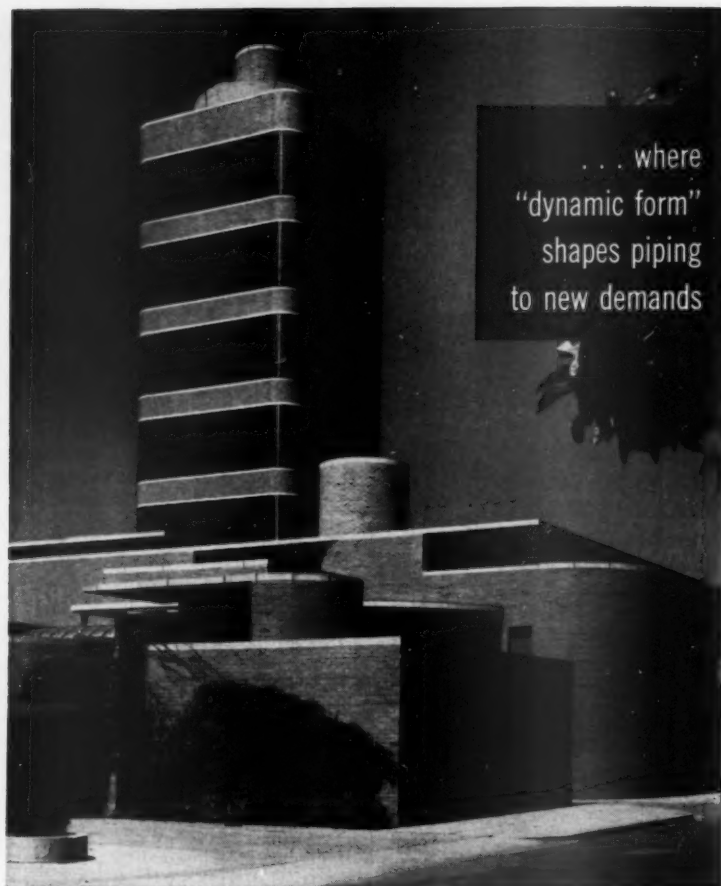


### NATIONAL DISTILLERS PRODUCTS CORPORATION

NEW YORK 16, N. Y.

OLD GRAND-DAD • OLD TAYLOR • OLD CROW • PM • OLD SUNNY BROOK • GILBEY'S GIN  
HILL and HILL • BELLWIS PARTNERS CHOICE • BOURBON DE LUXE • BOND & LILLARD • OLD HERMITAGE

Old Grand-Dad, Old Taylor, Old Crow, Kentucky Straight Bourbon Whiskies. Bottled in Bond, 100 Proof. PM Blended Whiskey, 65% Grain Neutral Spirits, 86 Proof. Gilbey's Distilled London Dry Gin, 100% Grain Neutral Spirits, 90 Proof. Bellwits Partners Choice Whiskey—A Blend, 60% Grain Neutral Spirits, 86.8 Proof. Old Sunny Brook, Hill and Hill, Bourbon De Luxe, Bond & Lillard, Old Hermitage, Kentucky Whiskies.



... where  
"dynamic form"  
shapes piping  
to new demands

## JOHNSON'S WAX

adds new evidence to  
the efficiency record of  
Jenkins Valves

### JOHNSON WAX TOWER

Architect: FRANK LLOYD WRIGHT

General Contractors: WILTSCHBECK AND NELSON, INC.

Consulting Mechanical Engineers:

SAMUEL R. LEWIS & ASSOCIATES

Piping Contractor: JOHN FEINER PLUMBING COMPANY

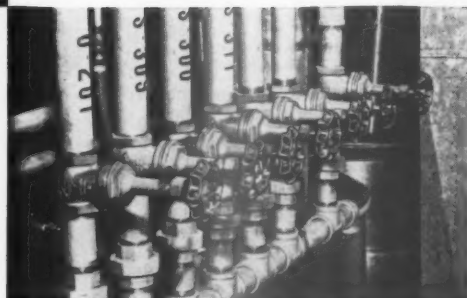
Symbolic of the advanced design principles that guided the building of the Johnson's Wax Administration and Research Center at Racine, Wisconsin, is the world-famed core-supported Research and Development Tower. Designed by Frank Lloyd Wright, this modern, 14-story laboratory provides every facility known to science for the continuous development and improvement of Johnson's Wax products.

The efficient use of space to provide open, well-lighted working areas in modern industrial structures necessitates careful planning of various plant service lines. In the world-famed Johnson's "Heliolab", for example, all piping and duct systems are standardized vertically in a single central shaft measuring 13 feet in diameter. Thus, pipelines serving plumbing and heating, air-conditioning, and all apparatus supply needs are confined to a minimum of space. Direct takeoffs at each of the 14 operating floors eliminate the complex hookups usually found in laboratory buildings. More than 1700 valves are used in tower service lines.

To assure trouble-free operation of such unique and closely coordinated facilities, all components were selected on the basis of proved dependability, safety, and long-range maintenance economy. Johnson's Wax engineers had first hand evidence of the high rating of Jenkins Valves from previous installations in plant and office buildings.

This confidence in the demonstrated *extra measure* of efficiency and economy provided by Jenkins Valves is shared by plant operating managements in every type of industry.

Despite this extra value, *you pay no more* for Jenkins Valves. For new installations, for all replacements, let the Jenkins Diamond be your guide to lasting valve economy. Jenkins Bros., 100 Park Ave., New York 17.



For a new addition to the wax manufacturing building, most recent enlargement of the Johnson's Wax plant, Jenkins Valves were again chosen. Above they are shown in a process piping hookup which supplies raw materials to a series of mixing kettles. Piping contractor for the new addition was Advance Heating Company, Racine, Wis.

**JENKINS**  
LOOK FOR THE DIAMOND MARK  
**VALVES**



Sold through Leading Industrial Distributors Everywhere

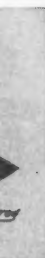




.  
r  
s  
s  
r  
d  
t  
t,  
s  
n-  
f



ing,  
ant,  
are  
raw  
ctor  
any,



bert



# WASHINGTON OUTLOOK

WASHINGTON  
BUREAU  
SEPT. 11, 1954



**Washington's post-Labor Day appraisal of the business outlook:**

**There'll be an autumn pickup.** Government experts whose conclusions get to Pres. Eisenhower, via the Council of Economic Advisers, agree on that.

**But no new upsurge is forecast.** The expected rise will be seasonal, the usual fall gain in preparation for winter, after summer dullness.

**There's some disappointment in it.** Republicans had hoped for a real upturn before the critical November elections. But Eisenhower has never forecast a resumption of the boom this fall. His advisers tied him to a leveling, at the end of the slide in the summer. That seems to be what we are getting.

—•—

**Take the Reserve Board's production index as an example.** It has stuck since January at about 124% of the 1947-49 average, with some shifting. It's an adjusted index, with allowances for the seasonal ups and downs. The prospect now is that it will show little change from here to Election Day. GOP politicians will have to stretch to brag of a rising economy. Democrats, on the other hand, will have tough going in efforts to label the current business level "hard times," but they can make the charge of "stagnation."

—•—

**There's a close watch on consumer spending—the buying by the users of things made in the factories and the demand on services.**

**This spending is up—**put at \$231-billion—\$1.5-billion over 1953. But there's a shift in the pattern of where the money goes.

**The rise is mostly in the buying of services—**rent, doctors' bills, transportation, etc. Consumers are choosy when they have money.

**It's consumer hardgoods that are hit.** Softgoods, like services, have been doing pretty well.

—•—

**But don't be misled by the official statistics.** They show a drop in durables. But there was a rise in August in hardgoods lines, with the exception of new automobiles. Autos are big in employment and production. Their decline covered up the fact that other lines were stronger. This weakness may be confusing through the fall. Shutdowns for model changes will be many, with the result that hardgoods statistics will be depressed until December.

—•—

**Another statistic that can mislead is backlog orders.** They never bulk large, except in periods of shortage—war, Korea, etc.

**Official reports show them way down—from \$74-billion in June, 1953,** to \$50-billion now. On paper, it's a big slide.

**But they can drop without affecting business too much.** Cancellation of military contracts has had a big hand; manufacturers' holding output above incoming orders (in a drive to shorten delivery time) also is a factor.

**Some lines actually have been bumping bottom, of course.** Over-all, though, officials see the shrinkage of backlogs as an inevitable result of supply catching up with demand—the prelude to more stability.

—•—

**Washington is optimistic for the long pull.** Population is rising (the real basic fact under demand), living standards are moving on up, the wage trend shows no sign of turning down, and the farmer—up against declining

# WASHINGTON OUTLOOK (Continued)

WASHINGTON  
BUREAU  
SEPT. 11, 1954

prices today—must supply a bigger market tomorrow. On top of it all is the deliberate Eisenhower policy of encouraging expansion (the big aim of the recent tax revisions). The forecasters who look far ahead are bullish. And if you think about it, they aren't big gamblers, playing long shots. The historical trend always has been up.

—•—

The Dixon-Yates contract will be O.K.'d (page 31). That's the deal to pump some private power into TVA to make up for public power sold to AEC. A real effort is being made by Eisenhower's new TVA Chmn. Vogel to persuade Curtis and Paty, the Democratic holdovers on the board, to go along. Congress has approved the project, in general. So, if Curtis and Paty should hold out, Eisenhower probably would have ground for removing them.

—•—

The Watkins Committee report on McCarthy is slated to be ready for Senate action by Oct. 1. But there's still no certainty that the Wisconsin senator will be reprimanded for misconduct. And even if he is, odds are he won't be replaced as chairman of the investigating committee. He will still have his anti-Red forum.

—•—

Experts are slow to forecast the election results. Usually, they are pretty well out on their limbs by the time campaigns really get going in September. This time they are cautious.

One reason is the close political division in Congress. It can be upset by local issues in states and Congressional districts. And with no national, emotion-pumping issues such as war or corruption, local issues may well decide who wins Congress.

—•—

But the biggest reason is Eisenhower. The GOP, as a party, probably has lost popularity since 1952. And it's normal in off-year elections for the party in power to drop seats in Congress. But Eisenhower's popularity still rates high in all the polls. And the President is leading his party's fight, beating the bushes for a Senate seat here, a House seat there (page 66).

This could bring on an off-year surprise, although past Presidents have found it hard to transfer their own popularity to candidates they were trying to pull through.

—•—

Dewey's bow out puts a question mark over New York, biggest political plum among the states. Sen. Ives has piled up good votes in past races and might be able to keep New York's governorship in the GOP column. But he has never been in the position of heading a ticket. It's worth noting that in the 1952 race, Ives ran ahead of Eisenhower.

—•—

Washington is concerned but not alarmed by the new Red incidents. The official line is that the shootings are not the preliminaries to an early showdown war, but part of the Reds' cold war strategy.

The popular interpretation at the State Dept.: Russia's aim is to split the U. S. from her allies. Russia constantly pictures the U. S. as the danger to peace. Then, the "incidents" dramatize the danger of a war—the danger of nations tied to the U. S. becoming involved.









**SCENERY UNLIMITED** The Northern Pacific Railway traverses some of the finest scenery in America. And passengers on its North Coast Limited, famous streamliner which operates between Chicago and the North Pacific Coast, are being given an extraordinary opportunity to see and enjoy it.

Now, the North Coast Limited features Budd stainless steel Vista-Dome cars. They let you see ahead, both sides, behind and above you, as you seem to glide past towering mountains, through evergreen forests, along rushing rivers.

Nearly a hundred of these Budd-built dome cars are now in service on United States railroads.

They are symbolic of the imagination and investment railroads are devoting to make your journey by rail safe, convenient and enjoyable. And they are also symbolic of the contributions Budd brings to the field of transportation.

The Budd Company, Philadelphia, Detroit, Gary.

*Automobile and Truck Bodies and Wheels, Railway Passenger Cars*

**Budd**

**PIONEERS IN BETTER TRANSPORTATION**

*B*right good looks that **WON'T** wear off  
... value that **CAN'T** wear out!



**S**TAINLESS steel brightwork (ask about it on the car *you* buy!) has much more than surface attractiveness. It has built-in, timeless beauty. Beauty that goes all the way through—doesn't scratch off or rust off. Beauty that lasts—outlives the car itself. And beauty that's practical . . . requires no weary polishing, just ordinary washing. Wherever it's used,

Allegheny Metal delivers something extra in good looks, strength, service life and resistance to rust and wear. This time-tested stainless steel has given thousands of products a competitive edge . . . maybe there's a place in *your* business where it can boost sales appeal or reduce costs. Let's help you look. *Allegheny Ludlum Steel Corporation, Oliver Building, Pittsburgh 22, Pa.*

W&D 4933

You can make it **BETTER** with  
**Allegheny Metal**®

Warehouse stocks carried by all Ryerson plants





# Rough Seas Hit Union Pension

● **AFL electrical workers stave off threat as one group of employers claims it bears unfair burden of payments and demands relief.**

● **Other funds face trouble. Hosiery workers, for one, have had to cancel pensions that hit employers too hard.**

● **It's sign of what happens to pensions when business sours. When costs pinch employers, problems begin piling up for both management and labor.**

The International Brotherhood of Electrical Workers (AFL) last week staved off serious trouble over its broad pension program—at least temporarily. Faced with employer threats to cut off contributions to the fund, convention delegates in Chicago instructed IBEW's executive council to seek "ways to save and strengthen" the fund.

Two weeks earlier, the American Federation of Hosiery Workers (AFL) "reluctantly" agreed to end a pension agreement with the Full Fashioned Hosiery Manufacturers of America because of "cut-throat competition and the general depression" in the hosiery industry.

The facts in the two cases are a lot different, but there is this important similarity: As long as the economy was going full speed ahead, pension programs of the electrical and hosiery workers faced no serious problems. But when the economy slowed down, problems weren't long coming.

• **Protests**—IBEW's pension plan covers some 300,000 of the union's claimed 625,000 members. Those under it pay \$1.60 a month into the retirement fund, and 12,000 contractors—members of the National Electrical Contractors' Assn.—just about match the IBEW members' contributions by paying 1% of payroll, or about \$550,000 a month.

On the eve of IBEW's 25th and biggest convention, NECA protested strongly that the union's present pension plan is "unfair and must be changed" if member-contractors are to continue making payments into the fund. At present, NECA complained, the 12,000 contractors employ only 123,000 of the covered 300,000 IBEW members; an estimated 3,000 employers of the other 177,000 members—in electrical manufacturing, utility, railroad, and radio-television industries and

in government jobs—pay nothing at all into the IBEW fund.

J. Scott Milne, IBEW president, agreed that there is "nothing fair or just in this. Our employers in the contracting field who have been cooperative in every way on our pension plan are carrying the freight for employers of 177,000 of our members who have no claim on the contractors." He recommended that a change be made—"the sooner the better or (contractors) are going to refuse to continue these payments."

A floor fight threatened when the union rules committee called for an increase in the amount to be contributed by the 177,000 covered workers not employed directly by contractors. The proposal, intended to create bargaining pressure by the affected group on their employers, to force them to pay the 1% of payroll levy, got nowhere; delegates voted instead to put the problem into the hands of their executive council.

• **Added Cost**—What happened at the IBEW convention pointed graphically to one thing—the way the 1% pension cost is beginning to pinch contractors—who had been paying the 1% levy since 1947, without much protest until recently, when the economy began tightening. The same thing—the tighter pinch—was behind the abrupt ending of the hosiery industry's pension program last month.

The American Federation of Hosiery Workers (AFL) demanded a pension plan from the Full Fashioned Hosiery Manufacturers of America in 1950. The employers' association turned the demand down, and asked for a downward revision of rates instead. Under a union-association agreement, the unresolved dispute went to arbitration. An award rejected the association's strong objections to a pension program, and ordered

one set up at an employer cost of 4% of payroll.

The manufacturers' association began paying into the pension trust fund early in 1950, and the union negotiated contracts for pensions with a number of large independent hosiery producers. But the bulk of the industry is still unorganized; there are only 30 association members and a handful of unionized independents. The nonunion employers weren't stuck with a 4% overriding labor cost, to cover pensions.

As long as there was business enough for everybody, this didn't matter so much. But when shifts in consumer buying habits and the overproduction of hosiery created a rough competitive battle in the industry, the extra pension cost meant—for organized employers—either selling hosiery at less than cost, or not selling at all.

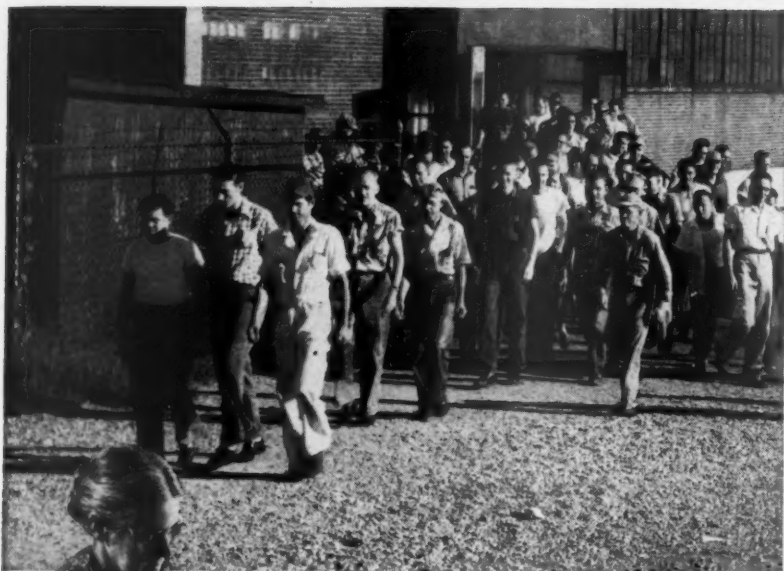
A few weeks ago, the association took a last glum look at prospects in their sick industry, and told the AFL hosiery union that it seemed impossible to continue pension fund payments—and survive. The union, unable to enforce pension payments on other, competitive employers, agreed that if employer survival—and workers' jobs—might be assured by dropping the pension program, then it would be dropped.

• **Liquidating**—At the time employers were freed from further payments into the fund, its total stood a little over \$3.5-million. The parties agreed to continue pension benefit payments "until the money runs out," and set up a priority program for future claims.

Until full reports on the service credits of all covered workers are obtained, nobody will venture any guess on how long the money now in the fund can be stretched out.

• **Others, Too**—Other unions are running into problems with pension funds, too. The United Mine Workers announced last week that its welfare fund had risen by \$1.5-million during the fiscal year ended June 30, to create an unexpended balance of \$93.5-million. This looks good on the surface, but to stay in the black, fund benefits had to be reduced during the early part of this year.

The International Ladies Garment Workers' Union (AFL) also reported early this year that some of its local pension funds had been hard hit by depressed apparel business, and that some workers entitled to retire this year wouldn't be able to until later.



## Tennessee... land of inherited industrial skills...

Tennessee's greatest industrial asset is its people. Here you have a labor force more than 99.5% native-born, abundant in supply, unusually well educated (median education, 8.4 grades), and readily trainable. Tennessee workers are exceptionally eager to learn and absorb training rapidly, as proved in World War II in the production of aircraft, chronometers, optical lenses, and similar precision-made products.

Equally significant is the fact that certain skills — particularly manual dexterity — are inherited from pioneer generations trained in mountain handicrafts. This is a priceless asset to industry. Vincent Flaherty, Gallatin, Tennessee, plant manager of Yale & Towne, expresses it this way:

"What we were most interested in were the intangibles — the spiritual temper of the community and the character, inherent skills, and trainability of the people. We found these in Tennessee. We liked so well what we found at Gallatin that we built another factory in Lenoir City."



### *May Our Industrial Representative Call?*

Our industrial representative, Mr. George L. Benedict, Jr., will be glad to call on you at your convenience and give you the full story on Tennessee labor and other industrial advantages. To arrange an appointment, or for specific answers to any questions you may have about available plant sites, transportation, power and similar locational factors, write



## TENNESSEE

INDUSTRIAL & AGRICULTURAL DEVELOPMENT COMMISSION  
ROOM 215 • 817 COMMERCE STREET • NASHVILLE, TENNESSEE

## Breaking a Strike

Detroit company seems about to defeat U.E. Red angle causes other unions to keep hands off.

The first effort by a major employer in the Detroit area to break a strike since before the auto union seemed assured of success this week—but for reasons having little to do with the strike issues.

Square D Co. opened its doors late last week and called on employees on strike since June 15 to return to work—or be discharged. Ordinarily, this would arouse concerted labor opposition. Instead, Square D apparently got general union support.

Two related reasons lie behind this: (1) The union on strike at Square D is the United Electrical Workers, thrown out of CIO on charges of Communist domination, and (2) the government now has a law under which Communist-dominated unions can be deprived of bargaining rights.

• **The Laws Delay**—Square D officials say they aren't planning "anything at the moment" to invoke action by the Attorney General—who must cite a suspected union in order to bring the new law down on it. Company attorneys say the law (BW-Aug.28'54, p27) seems "too fuzzy" and, besides, it would take about a year to strip UE of bargaining rights under its terms. Square D wants quicker action, and is counting on getting more direct relief than the law would provide.

The back-to-work movement that started last week as part of this strategy was therefore announced as not "a fight between company and union but a fight against Communism." And in strongly unionized Detroit it apparently was being accepted that way.

The day the plant reopened, about 20 workers went through massed UE picket lines. The next day the company began hiring. By 6 a.m., a line had formed made up largely of jobless auto workers. In midafternoon, Square D reported 100 regular employees had returned (out of 1,200 who struck) and 70 new workers had been hired. The company announced that others would be taken on this week.

• **Surrender**—What will happen if Square D completely breaks the strike is a subject for speculation even among company officials. If UE gives up, and sends workers back into the plant, company people think they will have no choice but to continue to deal with the union. UE held onto bargaining rights in May, defeating CIO's International Union of Electrical Workers.

ike  
seems  
Red  
ons to

employer  
a strike  
med as-  
but for  
with the

ors late  
ees on  
to work  
y, this  
opposit-  
ntly got

ad this:  
quare D  
orkers,  
f Com-  
ne gov-  
which  
can be

officials  
ning at  
by the  
cite a  
ing the  
any at-  
, 28' 54,  
ides, it  
rip UE  
terms.  
and is  
t relief

t that  
strategy  
'a fight  
but a  
And in  
appar-  
y.

about  
ed UE  
mpany  
ne had  
ss auto  
are D  
had re-  
(k) and  
. The  
would

en if  
strike  
among  
p, and  
, com-  
ve no  
d with  
aining  
terna-  
ers.

1, 1954



## As New Machines Go In—*Look Out* for Electrical Overload

**A**S YOU ADD lights, extend feeders and replace old machines with new ones that use larger motors, you may overload your plant's electrical system. An overloaded electrical system cannot deliver full voltage to all your modern machinery. Here's the result:

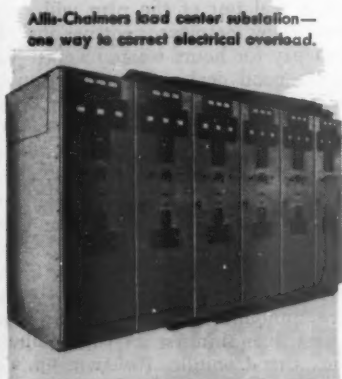
### Typical Losses from Low Voltage

- When voltage drops 20%, motor torque drops about 40%.
- When voltage drops 10%, output of infra-red dryers drops 19%.
- Every 5% drop in voltage increases motor heating nearly 10%.

Allis-Chalmers load center substations often provide the most economical means to modernize a plant's electrical system—assure full voltage and full power to all equipment.

These packaged units contain all necessary transformers, breakers and meters. They bring high voltage power to the load center—reduce length of low voltage cable. Their complete metal enclosure modernizes plant appearance—protects personnel. They are easy to install and may be added to or moved as conditions change.

Make sure that your plant's electrical system keeps pace with your growth. Your nearby Allis-Chalmers office will gladly help. Or write Allis-Chalmers, Milwaukee 1, Wisconsin.



Allis-Chalmers load center substation—  
one way to correct electrical overload.

# ALLIS-CHALMERS



C-5663



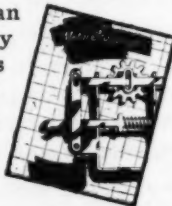
# STAMPINGS

## Short Run Stampings Provide Low-cost Way To Test New Products

THE DAYTON ROGERS MANUFACTURING Co. can produce short-run metal stampings with rigid accuracy in the most economical way.

With the DAYTON ROGERS method you can produce a limited quantity of die-cut stampings for your product, to test it or change it until it meets market requirements. *The short run tools will cost you no more than 15% to 20% of conventional type tooling.* There is no other method which equals the one now used by DAYTON ROGERS in producing a limited number of die-cut parts at the lowest possible cost.

FREE . . . We will be glad to send you a booklet describing in detail how DAYTON ROGERS can take you economically through the periods of product development and product change. Please write for it on your letterhead.



NATIONAL  
HEADQUARTERS  
FOR METAL STAMPINGS  
IN SMALL LOTS



**DAYTON ROGERS**  
*Manufacturing Company*

MINNEAPOLIS 7, MINNESOTA

### FACTS ABOUT SMALL LOT STAMPINGS

This method of producing metal stampings in small lots was originated by DAYTON ROGERS more than 30 years ago. It is based on a patented process, special machinery and craftsmen, specially trained as short-run tool makers and punch press operators. Production is quality controlled with a thorough inspection system which cuts rejections to a minimum, saving you time, trouble and extra expense.

*Factory trained representatives  
in all principal industrial areas.*

## Bonus Plan

A tie-up with plywood prices is working with two Oregon mills, but objections are seen everywhere.

Employees of two Oregon plywood mills received a 7½¢-an-hour wage bonus in the month ended in mid-August under a unique labor contract that ties pay to the sales price of their product. While the 190 workers affected appear happy with the arrangement, there is little prospect it will spread.

The contract was signed a few weeks ago by AFL's Lumber & Sawmill Workers and Medford Veneer & Plywood Corp. and its subsidiary Pacific Veneer Corp. It provided for no change in regular wage rates but offered this bonus-pay arrangement: Whenever plywood panel prices rise so that 50% of any month's sales by the company are at a price of \$85 per 1,000 sq. ft., the companies will pay employees a 5¢ bonus rate for all hours worked; if 50% or more of sales are at a price of \$90 or more, the bonus goes to 7½¢ an hour.

• **Fluctuates**—Loren Haugen, president and general manager of both corporations, said the bonus plan was proposed as a way wages could be tied to the companies' ability to pay, which fluctuates with the selling price of plywood.

During the first month, due to the lumber strike in the Pacific Northwest, the corporations sold plywood at more than the \$90 level, so employees got the maximum bonus. They're expected to get the same amount in the month ending in mid-September, but Haugen looks for plywood prices—and the employees' bonus rate—to drop as soon as the strike ends.

The real test of the plan will come then. Now, employees getting the 7½¢ extra pay for hours worked figure they have a good deal. There's an out for Medford workers if they lose their bonus in a dropping plywood market; they can reopen their contract on wages with a 60-day notice. The contract covering Pacific Veneer's plant at Crescent City, Ore., is closed tight until Apr. 1, 1955.

• **Union Objections**—After the Medford and Pacific Veneer contract terms were announced, several other firms expressed an interest in similar deals. One, the Coquille Plywood Co. in Coos County, Ore., offered AFL a similar contract, but the union turned it down.

According to the union, the plan accepted by Medford and Crescent City plywood workers is out of line with a Lumber & Sawmill Workers



# phosphates

## help make better finishes

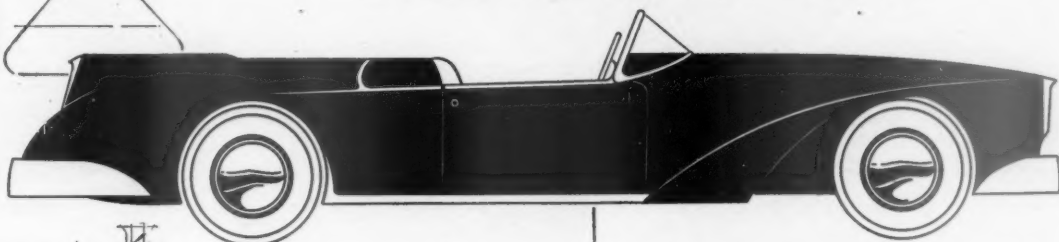
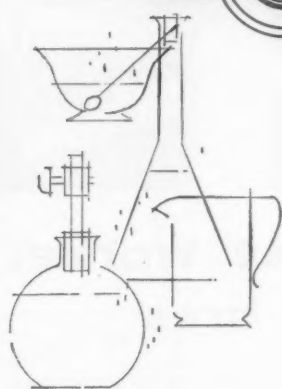
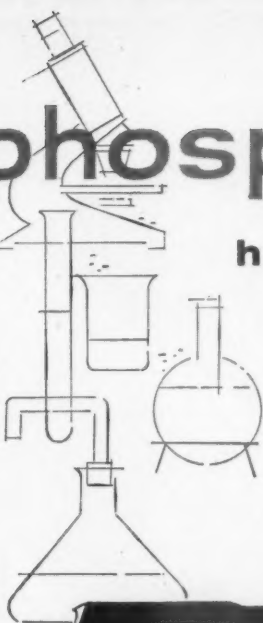
*Helping produce better and more durable finishes for automobiles*

*is only one of many applications of the amazing*

*phosphate family in the metal industry. Victor serves*

*more than 40 other industries with phosphates, formates*

*and oxalates to improve processes and reduce costs.*



**chemical polishing**—a phosphoric acid bath gives many metals a beautiful polish and eliminates costly buffing.



**rust proofing**—rust resistance plus a better bond for paint results when metals are treated with a bath containing phosphoric acid.



**vitreous enamel**—Frits containing monocalcium phosphate have a lower melting point and produce an enamel finish with an improved gloss.



**metal cleaning**—detergent solutions containing sodium phosphates are used to clean metals faster and more thoroughly.



**quick protection**—several phosphates may be used to provide temporary rust preventive coatings and provide a bond for paint.

Write for the bulletin that tells how phosphates are being used in your business.

IT PAYS TO SEE

**VICTOR**

Dependable Name in  
*Chemicals*  
for 56 Years

**VICTOR CHEMICAL WORKS**

141 W. Jackson Blvd., Chicago 4, Ill.

In the West: A. R. Maas Division, South Gate, Calif.

wood  
n two  
ctions

plywood  
r wage  
in mid-  
contract  
of their  
kers af-  
arrang-  
it will

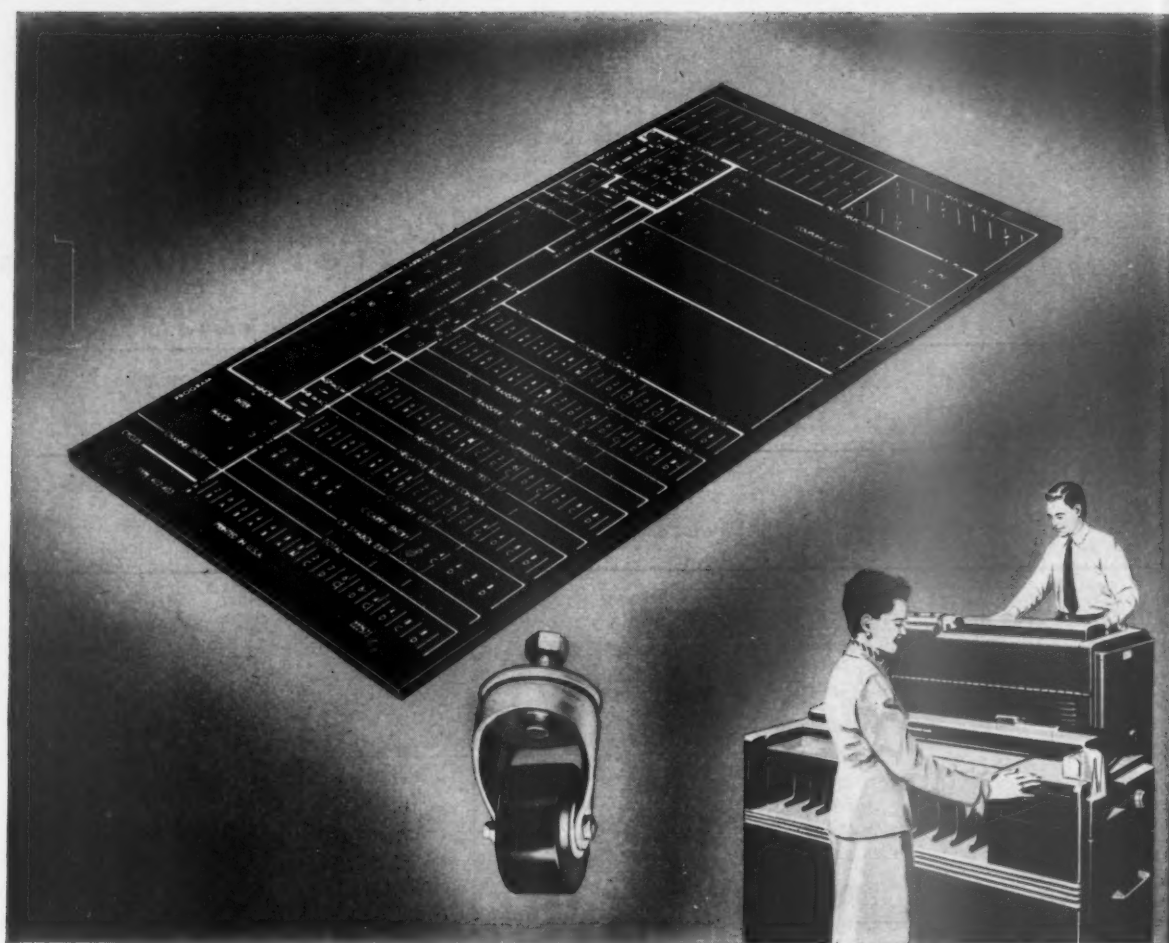
w weeks  
Sawmill  
& Ply-  
Pacific  
change  
red this  
ver ply-  
50% of  
any are  
ft., the  
s a 5¢  
if 50%  
of \$90  
n hour.  
resident  
corpora-  
roposed  
to the  
ch fluc-  
lywood.  
to the  
thwest,  
it more  
ees got  
pected  
month  
Haugen  
he em-  
s soon

l come  
he 74¢  
re they  
out for  
e their  
market;  
n wages  
contract  
ant at  
ght un-

Med-  
terms  
firms  
deals.  
Co. in  
a sim-  
med it

e plan  
rescent  
of line  
Workers

1, 1954



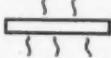
## Head and feet for an office worker who neither errs nor tires

### Properties of Synthane

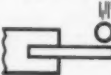
In addition to those mentioned in the text, Synthane has the following important properties:



**Chemical resistance.** Synthane resists most acids and alkalis in moderate solutions, and corrosive atmospheres.



**Temperature resistance.** Synthane is thermosetting, will not flow under elevated temperatures. Grades resisting up to 400° F are available.



**High impact strength.** Synthane stands up well in applications where it is subject to vibration, pounding and shock loads.



**Mechanical strength.** Synthane exhibits excellent strength under tension, compression, and other loads. It will not delaminate.



**Availability.** Synthane is supplied in more than 33 grades of sheets, also in rods, tubes and molded-laminated or molded-macerated parts. A complete fabricating service is available.

• The uncanny ability of tabulating machines to do complicated jobs quickly and accurately is famous. One of the materials which helps to make this possible is *Synthane*—a laminated plastic.

*Synthane* serves as the base for the brains of the machines—the plug boards upon which the control circuits are set up. *Synthane* is excellent for the purpose because of its combination of high dielectric strength, resistance to moisture, dimensional stability and ease of machining. *Synthane* is printable, too—circuit designations are

readily printed on its surface.

On tabulating machines, casters that are friendly to office-type flooring are needed. Casters of molded-macerated *Synthane* fill the bill. *Synthane* caster wheels are strong, do not flatten by constant pressure, and do not mar office floors.

Should you require a versatile material—one with many properties in combination—*Synthane* may be your answer. Our catalog tells the full story. To receive yours, drop us a note on your letter-head. Synthane Corporation, 1 River Road, Oaks, Pa.

Our 25th Year

SYNTHANE CORPORATION, OAKS, PA.

**SYNTHANE**  
LAMINATED **S** PLASTIC

policy against escalator clauses. Besides, the union says, the price received for products sold in any month "is not necessarily a measure of an employer's ability to pay."

• **Employer Objections**—Some other employers who studied the Medford-Pacific Veneer plan expressed a similar objection to it. A few noted another: Unless an employer opens his sales books to his union officers—something

most aren't willing to do—trouble conceivably could come up on the question of the price received for plywood sold in a given month.

Medford and Pacific Veneer, however, expect no trouble over that; by agreement, the corporations have 15 days after the midmonth close of the wage period in which to determine the run of prices and reporting it to the union.

## THE LABOR ANGLE

### Twilight of the Pattern Settlement

It's just like the stock market, the Finance Editor of **BUSINESS WEEK**, who thinks in such terms, observed. "Every day some new highs and some new lows in wages." He said it as he stood over the office news ticker one day last week as the report of Goodyear's new contract with CIO came in.

It's an apt comment. A really extraordinary situation prevails on the wage front. During the same season when pay rates in steel, electrical manufacturing, rubber, and a host of other industries have been negotiated to record highs, there have been sizable wage reductions in other lines.

Even more unusual, in one industry—autos—wages have been going up and down at the same time. While Studebaker and Kaiser-Willys employees—represented by CIO's United Auto Workers—are earning less per hour of equal effort than they earned in midsummer, Chrysler, Ford, and General Motors employees—represented by the same union—are earning more. Wages of auto's Big Three have moved up with the cost of living through the escalator wage clauses in their contracts. Meanwhile, Studebaker and K-W induced the union to let them trim labor costs.

**T**HE CONTRADICTION state of wage movements throughout industry has, of course, considerable economic importance. It is being studied, analyzed, and interpreted by almost everybody from the Council of Economic Advisers to local union business agents. As with most such phenomena, its full meaning will probably not be known until the show is almost over. But one hypothesis seems to be already tenable: We have come, if not to the end, then at least to a point of temporary break-

down in so-called "pattern" bargaining and "pattern" wage rates.

The pattern wage became the prevailing mode during the war, when the War Labor Board set pay rates in one or another big case and employers and unions everywhere signed contracts on the same terms. But the WLB did not invent patterns. Long before WLB set up shop, the uniform, industrywide wage was already well established in basic lines such as steel. Traditionally, what U. S. Steel did with wages was followed by every other steel producer. The wartime development was quantitative: More employers in different lines either chose, or were made, to duplicate what U. S. Steel, or General Motors, or some other big company was directed to do by WLB.

**B**ECAUSE REAL collective bargaining is a hard and frequently unpleasant job, a great many employers continued after the war to conform to a pattern that somebody else set. Even though it may not have made much sense for their own operation, they could afford the luxury of making the easy pattern settlements.

For the last two years, however, the areas covered by pattern settlements have been shrinking. Economic realities have intruded. The individual employer is forced to bargain, and bargain hard, in terms of his own business circumstance. For the most part, the unions have been resisting this change.

What is significant now is that the union attitude is shifting. When a strong and militant union such as the Auto Workers is prepared to accept peacefully, if not gracefully, the need of some of its major employers to cut labor costs, the pattern idea has been dealt a serious blow. It may never recover.

# SYNTHANE

S

## laminated plastics at work



**In heavy equipment** A number of Synthane parts are used in this king-sized power shovel. Electrical strength, chemical resistance and mechanical durability are all required for this application.



**In light equipment** Tiny, but highly accurate, Synthane ball retainers are used in this sensitive aircraft instrument. Durability, light weight and minimum friction are all needed on this job.



**In shock struts** The landing gear pistons on some of our largest planes are made of Synthane. Properties of light weight, toughness, durability and shock resistance were needed; Synthane supplied them.

**What's your PROBLEM?**

**MAIL COUPON FOR FREE FOLDER**

Our 25th Year

**SYNTHANE CORPORATION**

1 River Road, Oaks, Pa.

Please send me your free folder describing advantages, properties, uses, and kinds of Synthane plastics

Name

Title

Company

Address

City  Zone  State

# Just an Idea . . . but, it carried a garage-born business to the top of a vital industry



HARVEY B. WALLACE  
Founder and President

The idea was brand new but, we believed in it.

Diamond tools were thousands of years old but, ENGINEERED DIAMOND TOOLS, such as we set out to make in our garage workshop forty-four years ago, those were something new. And, like all new things, they had to be sold in the face of doubts and misgivings.

Nobody had ever before undertaken to "engineer" diamond tools to do specific jobs—but, we did.

Nobody had ever guaranteed diamond tools to do their jobs but we not only guaranteed our ENGINEERED DIAMOND TOOLS to do their job but guaranteed that they would do them better than any ordinary tool.

And, we kept proving it, over and over, until industries small and large knew that diamond tools engineered by Wheel Trueing represented

the highest technical achievement in the industrial diamond world. Presently this idea was extended to mining operations and, later to oil field operations when we successfully pioneered oil field diamond drill bits, now used throughout the world. And, every mail carried packages of Wheel Trueing diamond selections to discriminating diamond buyers throughout industry.

Our plant has grown to be the finest in the industry and our original group of three people is now a family of two hundred, many of them outstanding specialists.

Our idea of ENGINEERED DIAMOND TOOLS is no longer ours, alone. It is now shared by all industry and practically every product of modern industry is made better, and at less cost, because of it.

*There's no substitute for diamonds*

## WHEEL TRUEING TOOL COMPANY

3200 W. DAVISON AVE., DETROIT 38, MICHIGAN

**Eastern Plant and Offices:** WHEEL TRUEING TOOL COMPANY OF NEW JERSEY  
33 West Street, Bloomfield, N. J.

**Western Plant and Offices:** WHEEL TRUEING TOOL COMPANY OF CALIFORNIA  
5560 Alhambra Ave., Los Angeles 32, California

**Canadian Plant and Offices:** WHEEL TRUEING TOOL COMPANY OF CANADA, LTD.  
575 Langlois Ave., Windsor, Ont.





## Arbitration

Bethlehem Steel's experience shows how resorting to impartial umpires can smooth labor relations.

A labor contract without an arbitration clause is a rare bird today. Latest federal figures show more than 80% of all contracts now require arbitration of grievances—as a last resort—through an impartial third party. Little more than a decade ago, few did.

Early resistance to arbitration was largely due to the refusal of unions, and sometimes employers, to surrender the right to make final decisions on disputed issues. Now, the parties pretty much agree that an impartial viewpoint is helpful in settling arguments over the day-to-day application of contract terms.

More than that, an increasing minority of employers and unions—about 10% of the number who have arbitration clauses—are willing to refer disputes over new contract terms to arbitrators if they can't get a peaceful settlement otherwise. So, after a slow beginning, labor arbitration is making headway.

• **War Helped**—Two things went a long way toward breaking down the old reluctance to arbitrate:

• Wartime experiences with "recommended" settlements.

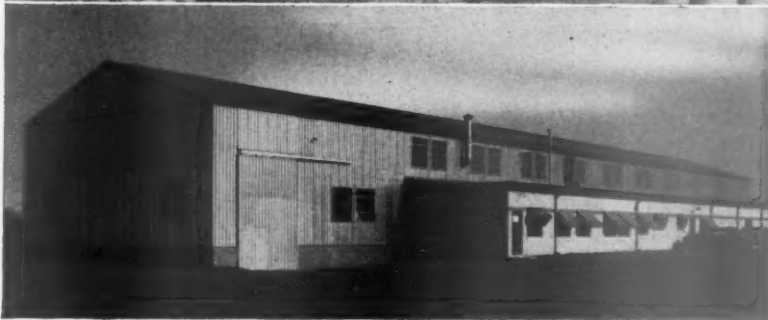
• The observed improvement in relations between companies and unions that operated under arbitration clauses. The fact that troublesome grievances were being settled by umpires without work interruptions was impressive at a time when companies and unions placed a premium on production.

One of the places where employers and unions focused attention was the steel industry—once turbulent but settling down impressively in the early 1940s. The arbitration of grievances wasn't the only reason for the improved relations, but it helped.

• **Steel Study**—A few weeks ago, the Labor Dept.'s Bureau of Labor Statistics recognized the early importance of the steel industry in the spread of arbitration in basic mass-production industries. It chose Bethlehem Steel for its first study of how labor and management iron out the rough spots left in contracts after the give-and-take of contract bargaining.

According to BLS, Bethlehem was selected because of its "relatively harmonious" labor relations through the years, and because its "detailed and carefully planned and nurtured grievance machinery took care of most of the disputes that arose; those that

## For Flexible Space Today and Tomorrow



(above) Efficient, column-free floor space is typical of all Ideco buildings.

(below) Predesigned, custom-planned to meet your every requirement.

### Meet Changing Needs with Expandable Ideco Buildings

• Today, your custom-planned Ideco building will provide the column-free floor area and unobstructed overhead space so essential in production or warehouse buildings. As your business changes and grows, your flexible Ideco building economically expands in length and width . . . easily adapts to new equipment and facilities.

Shop-fabricated Ideco buildings are well suited to both industrial and commercial uses. Available in clear spans up to 180', wall heights up to 40', in any length . . . sidewalls and roof of Ideco deep-rib steel sheet or a variety of other materials . . . with minimum maintenance throughout.



Your Ideco Building Consultant is qualified to advise you . . . you can save money with his complete building service.

For low-cost space in a hurry . . . this new Utilimaster® "package" building by Ideco. 30 day delivery . . . only 10 working days to erect a typical 50' x 100' building.

Send this coupon today for more Ideco building facts.



### IDECO DIVISION

DRESSER-STACEY COMPANY  
DEPT. BD, COLUMBUS 8, OHIO



- ☐ Send me full details on the new "Utilimaster"  
☐ Please send me your free book, "Steel Buildings"

I am considering a building \_\_\_\_\_ ft. x \_\_\_\_\_ ft.  
to be used as \_\_\_\_\_

My name, position, company, address are written in the margin.



Look How Easily

The



"HANDLER"

Handles Loads  
up to  
4000 Pounds

Just one lever does it all... **SHIFTS, LIFTS, BRAKES!**

The Colson Handler is the first proved-in-service gasoline-powered Lift Truck with hydraulic drive and hydraulic control. Just one lever does *all* the work—selects: speed range (low or high), direction (forward or reverse), load movement (raise or lower), and brakes (return to neutral applies brakes automatically).

Rider has unimpaired visibility at all times—backwards or forwards, and the "Handler's" extreme maneuverability permits efficient operation even on busy, narrow aisles.

Six horsepower gasoline engine provides plenty of power for rugged, round-the-clock operation.

Why not write today for free descriptive folder?

**THE COLSON CORPORATION**

ELYRIA, OHIO

Casters • Hand Trucks • Lift Jack Systems  
Hydraulic, Electric and Mechanical Power Lifts and Transports

required arbitration were only a small percentage of the grievances formally advanced by employees."

• **Arbitration Plan**—Bethlehem Steel signed its first contract with the United Steelworkers (CIO) in 1942. It included a provision that grievances not settled in a standard four-step grievance procedure should go to arbitration, without any interruption of work. Three contracts have been negotiated since 1942, but with one exception the arbitration program is about the same as when it began.

The difference is in the method of assigning cases to arbitrators. At the start, the parties chose "ad hoc" arbitrators on a case-by-case basis, never selecting any one arbitrator for frequent assignments. Later, the parties agreed to rotate cases in a three-man panel—to include a lawyer, an economist, and a professor of labor relations. Then, in 1952, the parties decided to appoint a permanent umpire, and they selected Ralph T. Seward, a veteran labor arbitrator. Seward is still handling all cases, with three assistants.

• **Types of Case**—According to BLS, more than 20,000 formal grievances arose during the decade that ended in mid-1952, when Seward took over arbitration duties. Of the 20,000, almost 2,400 were submitted to arbitrators—but only 1,003 went into actual arbitration. The rest were dropped.

BLS analysts reviewed the 1,003 cases and the way they were decided by impartial arbitrators. Their 42-page report deals with special situations with a particular steel company, but according to BLS it reflects the "standards of employer-employee relationships which are increasingly becoming a part of American industrial life."

Three-fourths of the arbitrated grievances involved wages, job classifications, or seniority questions. Most of the others were over union challenges of company disciplinary steps—a question of management's rights.

• **Pattern of Decisions**—Since arbitrators aren't committed to follow precedent, the decisions were not all uniform, but a pattern of decisions does show up:

• Arbitrators ruled very closely on making job assignments and discipline "the exclusive functions" of the employer.

• In cases involving discipline, they ruled on the fairness of penalties, not on the contract provisions or company rules that led to them. They agreed that management must have the right to punish infractions and that a union must prove "arbitrary, unreasonable, discriminatory" discipline or penalties that violate contractual rights of employees.

• At the same time, they held that there should be no punishment

y a small  
formally

m Steel  
e United  
included  
ot settled  
nce pro-  
on, with-  
k. Three  
ed since  
ion the  
he same  
ethod of  
At the  
oc" arbi-  
s, never  
for fre-  
e parties  
orce-man  
a econo-  
relations.  
ecided to  
and they  
veteran  
handling

co BLS,  
ievances  
nded in  
ver arbi-  
almost  
trators—  
al arbi-

1,003  
decided  
42-page  
uations  
ay, but  
"stand-  
relation-  
coming  
fe."  
d griev-  
ations,  
of the  
ages of  
question

arbitra-  
prece-  
all uni-  
s does

ely on  
ipline  
ne em-

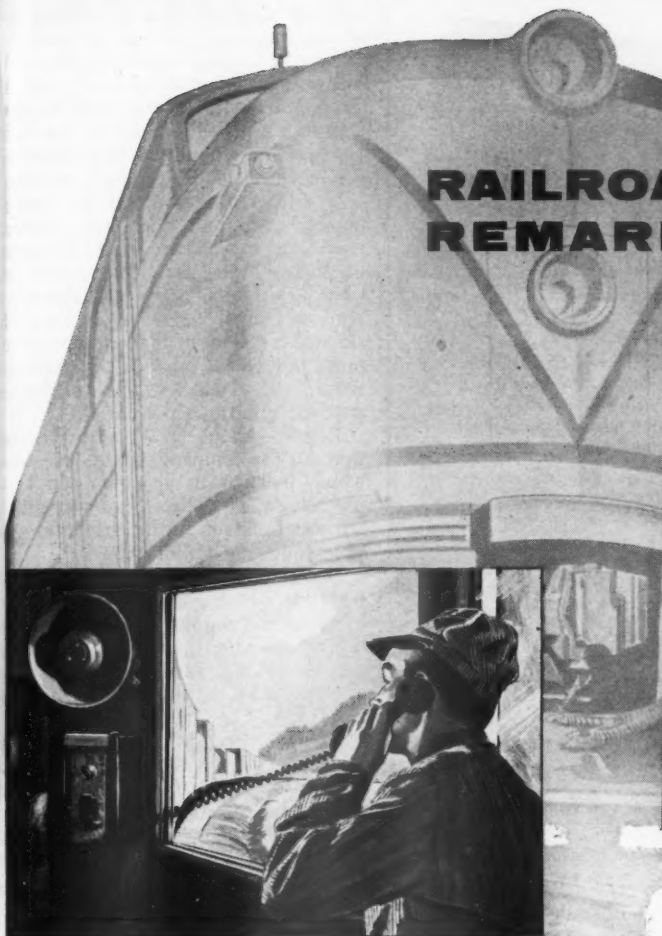
ipline,  
ualties,  
r com-  
They  
ve the  
that a  
reason-  
penal-  
nts of

held  
ment

, 1954

## RAILROADS ARE DOING REMARKABLE THINGS

with IT&T signalling  
and communications systems  
for greater operating  
simplicity, safety, efficiency  
and economy.



A vital new development is the IT&T Sequence Switch Interlocking System for railroad signalling. Used by the Rock Island at Gresham, Ill., one of the most complex network of rail lines in the world, one towerman controls the whole area merely by turning knobs on his control panel. This system, available now through Federal Telephone and Radio Company, a division of IT&T, provides quick automatic dependable route-setting—handling greater traffic faster and with full protection against conflicting train movements.

With Federal's mobile train radio systems, compact transmitters and receivers in engines, cabooses, wayside stations, towers, give railroads instant communications with moving trains. Stations, engineers, conductors, towermen, yardmen can all be in touch with each other at any time to pass information and instructions. Passenger-car public address and entertainment systems are also provided by Federal Telephone and Radio Company.



Closed-circuit TV systems, manufactured by Farnsworth Electronics Company, division of IT&T, use television to provide eyes for yard operators, inspectors, clerks. With cameras located at important yard points a clear visual picture of conditions is transmitted to tower or station receivers.

**PIONEERS** in the development of electrical  
and electronic telecommunication systems,  
IT&T and its divisions contribute every day  
to progress in our railroads and other  
industries. A wide range of products for  
industry, business and the home benefit from the  
skill, resources and facilities that have made  
IT&T a great American trademark.

# IT&T

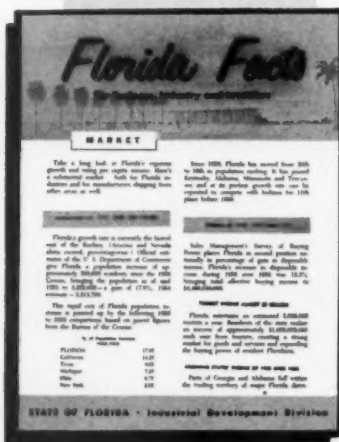


**INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION**  
67 Broad Street, New York 4, N. Y.

For further information address  
Federal Telephone and Radio Company, Clifton, N. J.



# Write for these basic facts folders about *Florida's* INDUSTRIAL OPPORTUNITIES



Ten new FLORIDA FACTS FOLDERS are now available to you who want down-to-earth facts to help you assess Florida's advantages for new plant, branch-plant, warehouse or regional office location.

The folders contain plain, unvarnished facts about each aspect of Florida that may be of value to you in reaching your decision. Each has been prepared for filing convenience and in such form that it can be quickly up-dated as changing conditions may require.

You may want one or all of these ten new folders. Write today to the State of Florida, Industrial Development Division, 3404A Caldwell Building, Tallahassee, Fla.

## FOLDERS AVAILABLE

Market Labor Water  
Government and Taxes  
Research Power  
Education and Culture  
Natural Resources Transportation  
Health and Climate

Plan national sales conventions, sales conferences and state and regional meetings for Florida. Exceptional facilities for any type of meeting. Get double value . . . successful meetings in delightful surroundings plus colorful recreational activities.

*The Governor of Florida and his  
Council for Industry & Commerce  
cordially invite you to investigate  
the special opportunities  
Florida offers Industry*

**you'll always  
do better in**

# Florida

without warning; that if enforcement of rules has been lax, severe penalties cannot be applied suddenly and without notice, and that arbitrary rules of discipline should be tempered by considerations of the past record of a rules violator, the amount of harm done by the violation, and customary practices.

• In signing the contract providing for arbitration, the union pledged itself not to call any work stoppages or strikes over "unfair" company action. Arbitrators interpreted this—in a few cases involving penalties for wild-cat strikes—to mean that union officials must not take a "hands off" attitude toward a threatened stoppage but must do their utmost to prevent it.

• **Results**—About 50% of the awards were for the company, while 20% were wholly in favor of the union and 12% partially so. The other cases were either referred back for further bargaining or were ended by withdrawals.

Not all the awards were popular, but BLS noted that dissatisfaction isn't unusual since "neither party may be entirely satisfied with contract provisions as negotiated," and this feeling may carry over to the arbitrator's interpretation.

The solution, says BLS, is to settle grievances before they get to arbitration or to clarify contract provisions at the bargaining table. The bureau notes, incidentally, that twice as many cases went to arbitration during the Bethlehem contract's first five years as in the second five years.

## LABOR BRIEFS

Admittedly broke, the United Textile Workers of America (AFL) last week approved a dues increase at a convention in Atlantic City. The increase will replenish the treasury and help finance an organizing drive against nonunion textile mills in the South.

Mop-up activities by the United Steelworkers (CIO) last week closed a number of small steel operations—mostly fabricating plants—where 1954 settlements on industry terms were being resisted. Meanwhile, American Can Co. and USW signed a new contract, one month early, giving 20,000 workers a 5¢ raise and "fringe" benefits.

Backing the Second Seattle International Horse Show for charity, the AFL Brotherhood of Teamsters has contributed \$1,500 for prizes. Next week it will also save the sponsors \$4,500 by moving—free—100 truckloads of clay for the horse show floor. The show receipts go to the Seattle Children's Orthopedic Hospital, long a pet charity of the Teamsters.





## SPECIAL STEELS, TOO, NEED A MASTER'S TOUCH...

Like fine violins, some steels just can't be mass produced by ordinary methods. They require rare craftsmanship in their making to provide the more exacting demands of industry.

These are the prescription-made steels in which Crucible excels. For Crucible makes only special purpose steels—REX high speed tool steels, backbone of the metal working industries for more than 50 years... REZISTAL stainless, made in mills designed and built exclusively for rolling these superior heat and corrosion resistant steels... HY-Tuf, the huskiest alloy steel ever produced... and many others.

So, for special purpose steels, call Crucible. Full stocks are carried in our own warehouses throughout the country. And our field engineers are available everywhere to help you in selecting the analysis and fabricating techniques most practical for your application.

# CRUCIBLE

first name in special purpose steels

54 years of *Fine* steelmaking

**CRUCIBLE STEEL COMPANY OF AMERICA, GENERAL SALES OFFICES, OLIVER BUILDING, PITTSBURGH, PA.**  
MIDLAND WORKS, MIDLAND, PA. • SPAULDING WORKS, HARRISON, N. J. • PARK WORKS, PITTSBURGH, PA. • SPRING WORKS, PITTSBURGH, PA.  
SANDERSON-HALCOMB WORKS, SYRACUSE, N. Y. • TRENT TUBE COMPANY, EAST TROY, WISCONSIN • NATIONAL DRAWN WORKS, EAST LIVERPOOL, OHIO

enforcement  
penalties  
and with-  
rules of  
by con-  
f a rules  
done by  
practices.  
provid-  
pledged  
toppages  
pany ac-  
is—in a  
or wild-  
officials  
attitude  
ut must

awards  
% were  
nd 12%  
re either  
ining or

ular, but  
isn't un-  
y be en-  
provisions  
ng may  
interpre-

to settle  
arbitra-  
visions at  
u notes,  
ay cases  
Bethle-  
s in the

Textile  
st week  
conven-  
ease will  
finance  
onunion

d Steel-  
a num-  
—mostly  
settle-  
being re-  
Can Co.  
act, one  
orkers a

Interna-  
he AFL  
contrib-  
week it  
500 by  
of clay  
e show  
ildren's  
charity

# "Saved hours of detailed sketching with three 60-second photos"

— Says Engineer Don Johnson  
Lever Bros., Cambridge Office

This story is only one of the countless ways Polaroid Cameras are at work for business and industry. No matter what your business, 60-second pictures can help you on the job. Attach them to reports to save time and lengthy descriptions. Use them in job instructions . . . as proof in damage claims . . . to help you show work progress . . . to illustrate products for sale. The pictures are beauties — reproduce perfectly in literature or catalogs.

With the Polaroid Camera, you can take the picture, check it on the spot to make sure it's just right, and put it to work — all in a matter of minutes. And all this with a camera that's a cinch to use, inexpensive to buy and operate. It's little wonder the camera is at work in more than 600 different fields, and is the most widely used camera in business and industry today!

Read how you can use this camera in the big free book offered below.



**1** "I had to redesign this machine fast to avoid a shutdown. Blueprints weren't available. I flew to our New Jersey plant and instead of making detailed sketches, took 60-second photos with a Polaroid Camera.



**2** "I checked my pictures for detail as fast as I took them. Then I jotted notes and dimensions on the back of each print — made a couple of rough sketches — and was heading back to Cambridge that afternoon.



**3** "Next morning I made finished drawings from my Polaroid Pictures. The job was finished ahead of schedule. I could tell you a dozen stories like this about my Polaroid Camera. It sure is an engineer's friend — a time-saver and a work-saver."



POLAROID CORP., Dept. B-W 2, Cambridge 39, Mass.

**FREE BOOK:** Please send "How to make Polaroid 60-second Cameras work for you." Fully illustrated.

Name \_\_\_\_\_  
Firm Name \_\_\_\_\_  
Your Title \_\_\_\_\_  
Street Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

## Polaroid<sup>®</sup> Land Cameras

Polaroid Corporation, Cambridge 39, Mass.

# LOCAL BUSINESS

## The Case of the Moving Coastline



## Stretching the Tidelands

**BATON ROUGE**—Louisiana legislators, quietly rummaging through old records and law books, have added nearly 35 miles to their oil rich "coast line" (map) by liberally interpreting tideland boundary language.

In the Tidelands Act, the federal government claimed that the states' jurisdiction went out three miles into the Gulf of Mexico. Texas claimed that old records showed they were to get "three leagues," which would mean 10.35 miles. This was agreed on by Washington. All other states were to have only three miles.

But Washington had not counted on the bayou historians from Louisiana. First, they probed their old county records and found that all their Tidelands grants were written "three leagues." This would give them the 10.35-mile limit the same as Texas. They were not satisfied—there were millions in oil out on the great Continental Shelf (140 miles of shallow land offshore).

• **Golden Inches**—Every inch meant more revenue for the state. All the history books were ordered out and a feverish search for "coast line" clews began. In March Judge L. H. Perez of Paquemines Parish (delta peninsula) came up with a strike. He told the State Mineral Board that an act of Congress passed in 1895 extended the Louisiana "coast line" up to 25 miles into the gulf (map).

Flushed with excitement, the legislators began to blend their interpretations into the Tidelands Act. Their "coast line" historically was up to 25 miles out. Therefore if the law said they were to have three miles or, better still, three leagues (10.35 miles) they would have an extended "coast line"

reaching out to 35 miles in spots (map).

The goal is obvious—40,000 square miles of oil land equal to one third of the nation's total onshore reserves. And, most important of all, the water is shallow enough for drilling. Continental Oil Co. already has a well 30 miles off Cameron Parish (extreme left of map) and is looking seaward. The question now is: When will the federal government apply the brakes?

## Red Faced Realty Men

**PITTSBURGH**—Local real estate men violently opposed an increase in realty taxes last fall aimed at giving the schools more money. The realty people claimed the schools were poorly managed and could save part of the extra amount asked in the tax proposal if they operated with more economy. At the election, the school tax was soundly beaten. Then, to restore school morale the Building Owners & Managers Assn. (one of the groups loudest in opposition) offered the school board "expert advice" on management, that would lead to economies that would more than compensate for the loss of tax money. An extensive survey was ordered of all school properties. Experts took nearly five months to dig into the schools' finances.

When the report was finished, the realty men were silent in embarrassment. Their report revealed that the school board was actually operating its 121 buildings at lower costs than downtown office buildings. The entire survey had nothing but praise for the economic way the schools were being run.

With faces getting redder, BOMA hastily renewed its offer to help the school board get a greater share of

**NEW**  
**Success**  
**Calendater**  
TRADE MARK  
ACCOUNTING CALENDAR

- counts dates
- does your figuring for you!

**SATURDAY**  
1  
JAN. 1955

Complete with Desk \$3.00  
Refill Pads \$1.50

If you plan for the future, you need a Calendater!

Here, at last, is a compact desk calendar to give you new accuracy, new fingertip convenience in computing deadlines and due dates.

Legible, easy-to-read date finder faces each standard calendar page... tells you instantly, day-by-day throughout the year, the exact date of interval days, weeks and 4-week accounting periods.

When you think of Success... think of Desk Calendars

When you think of Desk Calendars... think of SUCCESS

**FOR SAMPLE AND MORE INFORMATION, Clip Coupon Today**  
ATTACH TO YOUR LETTERHEAD

Columbian Art Works, Inc. 2300 West Cornell Street  
Department D-3 Milwaukee 9, Wis.

Please send me a sample and complete information about the new Calendater.

Name.....Title.....  
Company.....  
Address.....



# LOCATE YOUR PLANT *near America's Most Modern Port* **LONG BEACH, California**

## Important Shipping Advantages

The rapid industrial growth of the Long Beach area has paralleled the development of the debt-free Long Beach Harbor, today recognized as America's most modern port.

Continuing construction, based on long-range planning, serves steadily increasing tonnage and is designed to meet every need of our customers.

The wharves, transit sheds and shipside warehouses are all of fireproof steel and concrete construction. Huge canopies over the rail and truck loading platforms permit all-weather operations. Underground utilities give added convenience and all areas are floodlighted for night-time activities. Wide streets prevent congestion. Deep water channels will take any ship afloat — lighters are never necessary. The Port incinerator helps keep us ship-shape ashore.

## Other Advantages to Industry

There are at least 12 other reasons for locating your plant in the Long Beach area, including a large labor pool, rich market area, lowest electric rates, cheap and ample gas, abundant water supply, low taxes, available raw materials, transportation savings, a profit-making climate, better living and economic stability.

**Write for free industrial brochure and complete details — in confidence, if you like. This invitation is extended by the City of Long Beach and its Board of Harbor Commissioners.**

CHAMBER OF COMMERCE • DEPARTMENT OF INDUSTRY

200 East Ocean Boulevard, Long Beach 2, California

state school funds when the legislature convenes in January.

## Voice of the Turtle

CRISFIELD, MD.—The diamond back terrapin (a large turtle) may once again poke his head above the water and blink at Maryland's shores. At one time the bashful underwater beasts were much sought after by local fishermen (they sell for \$100 per dozen). But they all drifted away to other shores.

Last week the University of Maryland announced that its seafood laboratory will concentrate on trying to lure the terrapins back to home shores. As a start the university boarded more than 2,000 of the turtles in Beaufort, N. C., under a contract with the U. S. Fish & Wildlife Service. When Maryland's own laboratory is enlarged to take on the new marine residents, the turtles will be brought back to the specially constructed pens.

No one knows why the terrapins left in the first place, but sales declined from several million dollars a year to \$115,000 in 1945 and finally to a \$12,040 trickle in 1952. Now Dr. G. W. Wharton, head of the university's Dept. of Zoology, is convinced that close study of the animals' feeding and living habits will reveal ways to keep them in Maryland.

## Halts March of Dimes

MONTGOMERY, ALA.—Last year the city was hit by a severe polio epidemic. The National Foundation for Infantile Paralysis was called on to supply gamma globulin to immunize thousands of children. This year Montgomery asked for more help (units of the Salk formula), and got it. But when NFIP put forth a plea for an emergency fund drive—Montgomery was the only city in the state to refuse a permit.

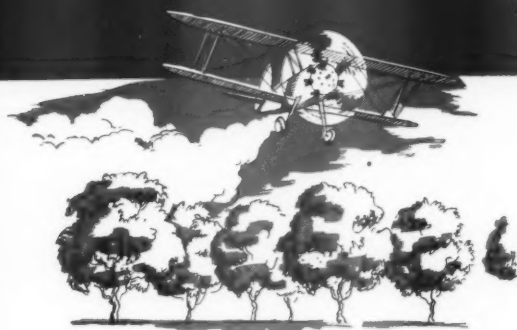
Last week, Circuit Judge Eugene Carter ruled that the ordinance in which the city commissioners banned the drive was unconstitutional. He said the city had no power to withhold a permit from the foundation because no standards had been set up to judge which charities should be given permits and which should not.

On the surface the city commissioners looked like villains biting the hand that saved them. But they offered a valid reason for their behavior—there were too many charity drives going at one time. The annual United Appeal drive plus several other local charities were making their bids this month and they felt the March of Dimes would be too much.

Judge Carter suggested that the NFIP reschedule its Montgomery campaign even though it could legally start



# Now— Antibiotics fight plant diseases



The effectiveness of penicillin, streptomycin, and other antibiotics in conquering infectious diseases of man and animals has suggested that these substances might be capable of controlling many damaging diseases of plants.

Recently, agricultural scientists brought to Merck the problem of saving pear trees from the ravages of bacterial blight. Diseases of this type already have wiped out pear trees in certain areas, and are a serious threat to apple, walnut, tomato and other crops.

## *Merck invites Industry to share the results of its Research Program*

During the past 20 years, Merck has invested more than \$100,000,000 in chemical research on a broad front. The results of this program are of potential value to almost every industry. Problems of your own industry, in which chemistry plays a part, may be solved by the skills and research experience of the Merck organization. Address: Scientific Administrator, Merck & Co., Inc.

Merck scientists, in co-operation with leading experiment stations, have developed new ways of controlling these diseases with minute quantities of streptomycin. The treatment leaves no deposit that may injure fruit or lower its quality. While the use of agricultural streptomycin has not yet reached full-scale commercial application, its effectiveness is becoming established in extensive field tests.

Antibiotics are only one of many Merck chemical developments. Among these Merck contributions numerous branches of industry may find the key to adding new products, improving present products, or lowering manufacturing costs.



*Research and Production  
for the Nation's Progress*



**MERCK & CO., INC.**

*Manufacturing Chemists*

RAHWAY, NEW JERSEY

gislature

diamond  
ay once  
e water  
At one  
sts were  
hermen  
ut they

Mary-  
labora-  
to lure  
res. As  
I more  
caufort,  
e U.S.  
Mary-  
ged to  
ts, the  
to the

ins left  
eclined  
year to  
a \$12,-  
G. W.  
s Dept.  
e study  
habits  
Mary-

es

st year  
polio  
dation  
on to  
munize  
year  
(units  
t. But  
for an  
omyery  
refuse

e Car-  
which  
e drive  
e city  
permit  
stand-  
which  
s and

ission-  
hand  
ered a  
-there  
ing at  
appeal  
arities  
h and  
would

e the  
cam-  
start

, 1954



# The engine

**AIR BRAKE DIVISION . . .** air brake equipment, brake slack adjusters, anti-wheel-slide devices, compressors and accessories for all rail vehicles and trolley buses.

**INDUSTRIAL PRODUCTS DIVISION . . .** pneumatic cylinders, actuators, air control devices, of all kinds and engineered pneumatic control systems.

**UNION SWITCH & SIGNAL DIVISION . . .** centralized traffic control, car retarders, automatic train control, train communication and interlocking systems and industrial electronic equipment.



# What won't stop running

**T**HE engine in your new car is guaranteed for 4,000 miles. In other words, at an average speed of 30 miles per hour, your guarantee is only good for 133 hours of travel.

Le Roi Company makes an engine for pumping oil out of wells that is guaranteed for 10,000 hours. By that we mean 14 months of continuous, non-stop, round-the-clock performance. Or the equivalent of 300,000 miles operation of your car.

The words, "heavy-duty," have lost their meaning in many industries today, but they are a very appropriate description of this engine, the Le Roi A288. For all practical purposes, the cooling system almost never needs make-up water, because it is a completely sealed vapor-phase unit like your refrigerator. The engine itself is powered with natural gas generally available free at the well head.

The A288 is so trouble-free that we recommend checking it only twice a month. During the interim, this engine is completely unattended, working full blast all that time. It's the closest thing to perpetual motion that ever hit the oil industry.

Le Roi Company makes a full line of heavy-duty engines, air compressors and rock drills to serve many industries. If you have other tough problems to solve, call on any Westinghouse Air Brake Company Division or Subsidiary listed below.

**LE ROI COMPANY, Milwaukee, Wisconsin**

Internal combustion engines, portable, stationary and self-propelled air compressors, rock drills, loaders and mixers.

## Westinghouse Air Brake COMPANY

EXECUTIVE OFFICES:

THREE GATEWAY CENTER, PITTSBURGH 22, PA.

**NEW MOVIE AVAILABLE**—entitled, "AT THIS MOMENT"—showing a vivid story of modern railroad progress. Length 26 minutes, on 16 mm. color sound film. For use of film write: United World Films, Inc., 1445 Park Ave., New York or Association Films, Inc., 347 Madison Ave., New York.

VISION...  
c train control  
and industrial

**PAR, INC.**... research, development and manu-  
facture of military electronic systems. Also serves as central  
research laboratory for Westinghouse Air Brake Company.

**GEORGE E. FAILING COMPANY**...  
portable drilling rigs for oil, water and mineral exploration  
and a variety of equipment and supplies.

**LE TOURNEAU-WESTINGHOUSE COMPANY**...  
earth-moving equipment including tractors, scrapers, haulers, other  
construction tools and logging equipment.

© GF Co. 1954

## Here's how to store "non-productive" stock

*The GF Control System, using **GF STEEL SHELVING, RACKS AND BINS**, reduces handling; cuts inventories; saves time, money*

**YOUR STOCKROOM** should be as carefully controlled as your cash box! If you can't lay your hands on maintenance and "housekeeping" supplies without long search and extra steps...or if they run out through lack of proper inventory control...it costs you time and money!

**PERFECT CONTROL IS SIMPLE.** We have prepared a booklet (free if you write for it on your company letterhead) titled: "Non-Productive Stock—Its Storage and Handling". In it is a scientific control system that will save you important dollars where you'd least expect to find them.

**DESIGNED FOR ECONOMICAL EFFICIENCY.** GF steel shelving, bins, racks and cabinets

are expressly designed for systematic storage of all maintenance and replacement items for plant, factory or office. GF steel units can be combined as you wish, moved as you wish.

**MADE STRONG TO LAST LONG.** Made of toughest steel, GF shelving gives you more strength with less bulk. Cannot warp, split or rot...and it lasts so long it pays for its low initial cost many times over.

**WE REPEAT...** send for our FREE booklet, "Non-Productive Stock—Its Storage and Handling". No obligation on your part. Address: The General Fireproofing Company, Dept. B-35, Youngstown 1, Ohio.



**MODE-MAKER DESKS • GOODFORM ALUMINUM CHAIRS • SUPER-FILER MECHANIZED FILING EQUIPMENT • GF ADJUSTABLE STEEL SHELVING**

*Good metal business furniture is a good investment*



now. The national headquarters in New York is expected to make a new date announcement this week.

## Into Each Little Life . . .

**PORTLAND, ORE.**—Every cloud is supposed to have a silver lining—but the Portland Water Bureau does not agree. Anxious eyes are turned skyward as the city is being drenched by an unusually heavy summer rainfall.

All this water would make mid-western farmers and "water-banned" suburbanites drool. But Portland's \$30-million water utility is experiencing a slump in revenues as nature keeps the lawns green free of charge.

Last week, there were nasty rumors buzzing around city hall of a possible hike in water rates if the clouds continued to hover over Portland. PWB is in the business of selling water and the usual summer boom in sales has fizzled to a figure a little over the winter volume. In the fiscal year ending two months ago sales were \$585,728—a 36.5% drop (last summer was bad too).

Things looked darker and darker for the bureau as the rains continued to fall. It has large bond debts and its cash funds are drying up. PWB bought a new pipeline to the Bull Run Reservoir in anticipation of dry summers and was crossed up by two wet ones in a row.

## Dehydrated Town

**TOLEDO**—The small village of Harbor View on Maumee Bay just outside of Toledo used to be a weekend hide-out in the summer for northern Ohio tourists. It lost its appeal when Lake Erie lapped away most of the beach and local dredging created a 37-acre marshland practically in the center of town.

Last week, thanks to some amiable swapping with two of Toledo's biggest industries, things began to look up. "Boat for hire" signs were dusted off in anticipation of the tourist's return. Here's what happened:

The Toledo Edison Co., which is building a \$34-million power plant at Harbor View, needed permission to build a breakwater to protect a boat channel from the bay to the plant. In exchange for the permission it gave the village free use of the boat channel as well as walled protection from lake erosion.

At the same time a deal was worked out with the Lakefront Dock & Railroad Terminal Co., which is in the process of dredging 300,000 cu. yd. of silt from its basin. The silt will be used to fill in the marsh. The village will also get aid to fill in the beach area. Mayor Maynard C. Keaton said the industrial neighbors have "literally put us back on our feet."

# making sales "hay"

## for you

## ... in Ohio!

Bees help you make sales in Ohio—big sales, steady sales every month of the year.

They signify wide crop diversification—universally practiced in Ohio to keep dollars rolling in right around the calendar. With lots of cash in his pocket all the time, the Ohio Farmer keeps the sales registers ringing regularly.

So, your best place to sell is in Ohio, where full diversification means prosperity all year long. Best way to sell is through THE OHIO FARMER, the farm paper with two issues every month devoted exclusively to Ohio agriculture. You're sure of readership—sure of action!

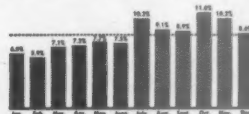
Similar publications in similar markets are MICHIGAN FARMER and PENNSYLVANIA FARMER. Get the facts on all three today. Write B1013 Rockwell Avenue, Cleveland 14, Ohio.



Not only a honey bee—but a money bee! Seed yields are often trebled when an adequate number of bees visit the blooms. More than 50 crops in the United States are dependent upon insects for pollination. And, most of them are found right in Ohio, where crop seed and fruit play an important part in making Ohio a top-third state in farm income.

**Advertise in Ohio where it's  
PAYDAY all year 'round!**

(Percent Farm Cash Income Received Each Month)



Based on eight-year study of Ohio farm income—  
(Government payments not included)



*The OHIO FARMER*

Cleveland, Ohio

MICHIGAN FARMER, East Lansing, Michigan  
PENNSYLVANIA FARMER, Harrisburg, Pennsylvania

# GOVERNMENT

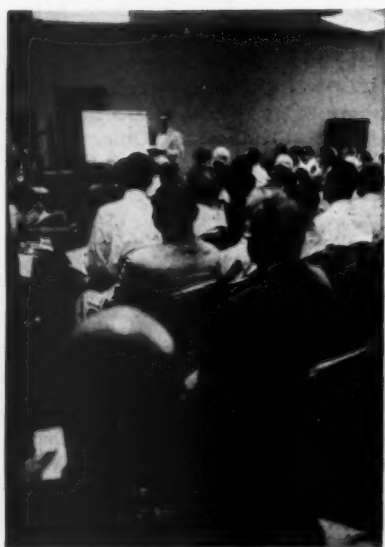


**KEY MAN** John McGuire (at desk) heads division that phrases language for forms.



**NINE-MAN BOARD** of advisers, which includes J. S. Seidman (wagging finger) and (right to left) Wallace N. Jensen, Morris L. Rinehart, Frederick L. Patton, review work

## Tax Artists Add Some Charm



**MORNING** briefing session is optional, but the Standing Room Only sign goes up early.



**FORM WRITERS** tell McGuire (seated, head of table) what they think should go on forms, and where. They have to squeeze in a lot of new data.



ger) and  
new work

of other departments. They pass on everything from contents to typography.



**BOSS MAN** T. Coleman Andrews sees no point in making tax collection any grimmer than it has to be. So the Internal Revenue Service's new tax forms incorporating the new laws will be easier to read and easier to understand.

## arm to Rejiggered Revenue Law



**SHIPPING ROOM** mails copies of new revenue code to IRS agents in the field.

About the first of the year, you will receive a message and a package of new tax forms from the man on the cover of this week's **BUSINESS WEEK**—T. Coleman Andrews, Pres. Eisenhower's chief collector. The forms and the instructions for filling them out will be the handiwork of the men in the pictures above. It is their job to translate the tax laws adopted by Congress into working rules for the taxpayer.

If they do what their boss expects, the world's biggest direct mail operation will go into production next month—just a few weeks later than usual. To show for the delay, they will have a completely revised product, jazzed up with eye-catching covers, and dotted with new ways in which you can pare down your taxes.

• **Marathon**—Almost all the 3,000 different forms used by the Internal Revenue Service are being revised in an 8 a.m.-to-midnight marathon in IRS's Washington headquarters.

Most of the changes were forced

when Congress adopted the Administration's tax revision bill in the closing days of the last session. A few of the changes—such as the illustrated covers on tax instructions for businessmen and farmers—stem from Andrews' own feeling for public relations.

Andrews—an accountant by profession—has no idea of making tax forms good entertainment. But he points out that the 50-million packages he will mail to taxpayers next December comprise the most direct contact many U.S. citizens have with the federal government. "No point in making tax collection any more grim than it has to be," he argues. Inside, the pages will have an easier-to-read type face. Like any good direct mail executive, Andrews hopes these changes will improve his returns.

• **Young Man's Job**—The burden of translating the new tax laws into forms and instructions for the taxpayer falls on about 150 top technicians at IRS. Most of these men were inherited by

# Here's More Technical Aid In Selection And Design Of Your Fasteners And Parts



Townsend has expanded its Technical Sales Department to help you in your constant effort to improve your product, reduce unit costs and speed assembly. Here, a group of specialists works as a unit to devise the most economical and efficient methods of product assembly for all industry.

These men can serve you in several ways. They will visit your plant as fastening consultants to your design engineers and operating men. They will analyze a particular product and design special parts for it or suggest use of standard products in the assembly.

You may want them to study your entire production line for improved assembly techniques—they will even design a single part to solve a specific problem.

Another way to obtain the services of this department is to send drawings and samples of specific items for suggestions as to how

they can be produced more economically.

Back of the Technical Sales Department is a company with nearly a century and a half of wire drawing and cold-forming experience. More than 10,000 standard and special parts and fasteners are produced regularly by Townsend.

In addition to the wide range of products and design experience at your command, Townsend has the tremendous capacity to produce 60-million pieces a day. This means you can depend upon Townsend to keep pace with your production lines since, in its several plants, there are enough machines of any type to handle a variety of long production runs simultaneously.

To learn how you may effect substantial savings in material costs, speed production and improve your product, write today for illustrated bulletin or use the coupon below.

## Townsend

COMPANY • ESTABLISHED 1816

Sales Offices in Principal Cities

In Canada: Parmenter & Bulloch Manufacturing Company, Ltd., Gananoque, Ontario

**TOWNSEND COMPANY**  
Sales Department  
New Brighton, Pa.

Please send Technical Sales  
Department Bulletin TL-98.

Name \_\_\_\_\_ Title \_\_\_\_\_  
Company \_\_\_\_\_  
Street \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

Andrews when he took office in 1952. They are almost entirely career civil servants; many hold night school degrees in law and accountancy; most of them are young.

Andrews has been known to scold business friends for not turning over enough responsibility to young men—with his own technical staff as Exhibit A. These men are working 16 hours a day to boil the tax philosophy of the Eisenhower Administration down to its gubby details.

• **Writing the Ground Rules**—The new policy of Congress to stimulate investment by liberalizing depreciation, for example, will have to be spelled out so businessmen will know exactly what is expected of them. The law itself merely states the general policy. IRS works out the ground rules in a series of regulations.

First, IRS technicians draw up a tentative regulation, which is printed in the Federal Register. This is followed by a public hearing after a 30-day period for the filing of protests and suggestions. The regulation may then be revamped before final adoption by officials as a full-fledged Treasury decision. In that form, it has the weight of final authority, except where taxpayers want to take a disputed point to court.

• **Ploughing Through**—Over the next few months, five thick volumes of new regulations will be worked through this laborious process. Some 40 experts in IRS technical divisions, plus a detachment of 20 lawyers from the chief counsel's office, have been assigned to writing regulations.

Other technicians are grinding out guidance for IRS field agents, which will eventually fill a five-volume manual. Another group is revising one of the IRS basic publications—a 25¢ booklet called Your Income Tax, written for the average taxpayer. About 300,000 copies will be printed well ahead of next Mar. 15.

• **Expert Advice**—As their work pours out of conference rooms, it is reviewed by top IRS officials, with the help of a nine-man advisory group of outside experts. In this group are three business tax executives: Morris L. Rinehart of American Air Lines, Frank Olds of Chrysler; and Frederick Patton of Cambridge Rubber. Accountants are represented by J. S. Seidman and Thomas J. Green of New York, and Wallace M. Jensen, Detroit. Attorneys in the group are Thomas N. Tarleau of New York, chairman of the tax section of the American Bar Assn.; Joseph F. Platt of Columbus, Ohio; and Charles D. Post of Boston.

These men were appointed by Andrews, on the recommendation of three professional associations involved: the American Bar Assn., the American Insti-



in 1952.  
er civil  
hool de-  
y; most

to scold  
ing over  
g men—  
Exhibit  
hours a  
y of the  
wn to its

The new  
e invest-  
ion, for  
lled out  
tly what  
w itself  
y. IRS  
a series

y up a  
printed  
is fol-  
r a 30-  
ests and  
y then  
tion by  
ury de-  
weight  
re tax-  
point

e next  
of new  
through  
experts  
a de-  
chief  
ned to

ng out  
which  
annual.  
of the  
booklet  
en for  
00,000  
ead of

pours  
viewed  
elp of  
outside  
busi-  
ehart  
lds of  
Cam-  
e rep-  
omas  
ce M.  
group  
York,  
f the  
Platt  
s D.

An-  
three  
the  
Insti-

tute of Accountants, and the Tax Ex-  
ecutives Institute. They offer advice on  
everything from the content of regula-  
tions to the typography of forms.

• **On the Sidelines**—This group is  
about the only outside contact IRS  
technicians have these days. Washing-  
ton's permanent colony of tax experts  
has been pushed to the sidelines. Its  
members normally see IRS technicians  
as a matter of routine. Since regulation  
writing began, many have submitted  
suggestions in writing, but they have  
not been invited to conferences. They  
expect to get into the act after the  
tentative regulations have been pub-  
lished. Businessmen can enter protests,  
and make suggestions at that time.

IRS expects major changes to stem  
from the hearings. "We need a lot of  
good fights out in the open before some  
of us will know what the new law  
really means," one said.

• **Progress**—The first of the new regu-  
lations has already been published in  
tentative form. This one covers a wide  
variety of decisions taxpayers must make  
before the end of the tax year. A 250-  
page regulation on corporate reorganiza-  
tions and distributions is nearing first  
publication. Others will follow over  
the next 60 days.

The heaviest deadline pressure is on  
the forms and instructions for tax-  
payers—the all-important December  
mailing. Most of this material must be  
ready for the printer in October. The  
press run for just one item—single  
copies of Personal Income Tax Form  
1040—will last 103 days, with 1-million  
copies produced each day.

• **Changes**—The tax package you get  
at home will be about the same size  
as the one you received last year—two  
copies of form 1040, two Schedule D's  
showing gain or loss from business or  
profession, and 16 pages of instructions.

You'll notice some changes, however.  
The tax table that last year occupied  
page four of the form will be moved  
to the instructions section. In its place  
will be a half-page devoted to the new  
tax benefit for income from dividends,  
and half a page for figuring the new  
benefits on retirement income.

There will also be 12-million special  
farmer packages, 9-million for busi-  
nesses, and 14.5-million copies of tax  
form 1040-A used by individuals.

• **Happy New Year**—Most of this mate-  
rial, once it is off the presses, is shipped  
to Kansas City. If it all went by rail,  
it would fill 350 freight cars. Truckers  
get a big piece of the job, however. The  
IRS processing plant in Kansas City  
will put more than 50-million individ-  
ual names and addresses, taken from  
this year's returns, on the packages.  
Then they'll be reshipped, this time to  
IRS district offices, where they will be  
put into the mail. You'll probably get  
yours after the Christmas mail rush.



## How One Townsend Part Does The Work Of Two

Combining the functions of two  
parts or more into a single cold-  
headed piece is a routine operation  
at Townsend. It's an operation that  
will help you simplify design, speed  
assembly and reduce inventory  
problems. This results in improved  
products and lower unit costs.

The bolt and sleeve above were  
assembled by hand and used to  
fasten a pulley in a household auto-  
matic clothes dryer. It was difficult  
to obtain a tight connection with  
the two pieces, which often resulted  
in excess vibration. Complaints  
and maintenance calls were numer-  
ous. The parts came from two sup-  
pliers which doubled the detail of  
purchasing and inventory control.

All of these problems were  
quickly solved by Townsend. The  
Technical Sales Department de-  
signed the single cold-headed part

shown above which does the work  
of the two pieces. Assembly is  
speeded, purchasing and inventory  
control simplified. The biggest ad-  
vantage, of course, is the tight, per-  
manent connection achieved with  
the Townsend part, which elimi-  
nates a headache for manufacturer  
and dealer alike.

This is just one typical example  
of how the Townsend method of  
producing cold-formed parts and  
fasteners improves products and  
reduces unit costs for manufactur-  
ers in the appliance industry and  
other industries as well.

To learn quickly how Townsend,  
as "The Fastening Authority," will  
work with you to reduce assembly  
costs, ask to have an engineer call.  
For additional information, use the  
coupon below or write for illus-  
trated bulletin.

# Townsend

COMPANY • ESTABLISHED 1816

Sales Offices in Principal Cities

In Canada: Parmenter & Bulloch Manufacturing Company, Ltd., Gananoque, Ontario

**TOWNSEND COMPANY**  
Sales Department  
New Brighton, Pa.

Please send "Special Cold-  
Formed Fasteners and  
Small Parts" Bulletin TL-89.

Name \_\_\_\_\_ Title \_\_\_\_\_  
Company \_\_\_\_\_  
Street \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_



RAYMOND Multiwall Shipping Sacks are made with the strength and other protective properties required by a very wide range of industrial products; made to keep the contents *in* and foreign elements *out*; to deliver each commodity clean and safe to destination.

Call in a Raymond man for a constructive analysis of all your package needs. He knows that businesses *are* different and he is fully qualified to advise the type of Raymond Shipping Sack adapted to your special needs. He may even suggest a means of cutting your container costs.

Naturally we prize the continued good will of a customer far more highly than a one-time order. We think you know what we mean. THE RAYMOND BAG COMPANY, Middletown, Ohio. Phone 2-5461.

**Raymond**  
MULTIWALL PAPER  
SHIPPING SACKS

## Here's Where Control

Republicans in these districts have a fight on their hands.



STATE	DISTRICT	INCUMBENT	1952 % WON BY
Arizona	1	Rhodes	54
California	12	Hunter	won both primaries
	13	Bramblett seat*	51 %
	30	Wilson	59.6
Connecticut	3	Cretella	52.8
Delaware	At Large	Warburton	51.9
Indiana	3	Crumpacker	54.5
	8	Merrill	52.6
Maryland	5	Small	50.4
Michigan	17	Oakman	52.9
Missouri	4	Hillelson	53.3
	6	Cole	52.4
Nevada	At Large	Young	51
New York	12	Dorn	52.7
	25	Fino	50.1
Ohio	3	Schenck	51
	16	Bow	54
Oregon	3	Angell seat**	54
Pennsylvania	11	Bonin	50.2
	19	Stauffer	52.3
Utah	2	Dawson	52.5
Virginia	6	Poff	51.5
	9	Wampler	51.7
	10	Brayhill	50.2
Washington	1	Felly	51.4
	2	Westland	54.2
West Virginia	4	Neal	53.3
Wisconsin	5	Kersten	51.6

\*Bramblett convicted of taking kickbacks from office staff

\*\*Angell defeated in primary

## Contestants Get Set

If you knew which political party would win the majority of the Congressional races shown on the map above, you would know who will control the 84th Congress. These are the key House races—the 50 closest now in sight, with primaries in the states coming up next Tuesday.

These are the contests to watch over the coming weeks. Note that they aren't all in districts where a 5%

change could make all the difference. Important local developments in what are normally regarded as "safe" districts will cause some shifts. For instance, Adm. Ross T. McIntyre, who was Roosevelt's physician, is running in a Republican San Diego district, and the Navy people are backing him.

In the Senate, as a result of deaths, some 37 seats will be up this year—15 Republican and 22 Democratic. Four-

# Control of the House Will Be Decided

... and these Democratic districts are in for a scrap.



STATE	DISTRICT	INCUMBENT	1952 % WON BY
California	6	Condon	50.6 %
Colorado	1	Rogers	50.8
	4	Aspinall	50
Idaho	1	Pfost	50.3
Illinois	9	Yates	52.4
	21	Mack	52.4
Kansas	1	Miller	51.5
Maryland	7	Friedel	51.4
Montana	1	Metcalf	50.3
Minnesota	3	Wier	52.2
New Jersey	4	Howell seat*	54.7
	6	Williams	
New York	6	Holtzman	49.2
North Carolina	9	Alexander	52.5
Ohio	6	Polk	50
	13	Secrest seat**	
Pennsylvania	5	Green	54.2
	3	Byrne	58.4
	14	Rhodes	49.7
West Virginia	1	Mollohan	52.9
	2	Staggers	51.5
Wisconsin	9	Johnson	57

(won seat in special election in 1953)

\*Howell running for Senate, elected in 1953 in special election

\*\*Secrest appointed to Federal Trade Commission

© BUSINESS WEEK

## Set for the Election Race

teen of the Democrats are from either the South or from states otherwise rated as safe, leaving only eight "contested" seats: Anderson in New Mexico, Burke in Ohio, Douglas in Illinois, Frear in Delaware, Gillette in Iowa, Humphrey in Minnesota, the Johnson seat in Colorado, Murray in Montana.

Of the 15 GOP seats, seven are relatively safe, leaving eight in doubt: Cooper in Kentucky, Gordon in Ore-

gon, Dworshak in Idaho, Ferguson in Michigan, Case in New Jersey, Kuchel in California, Saltonstall in Massachusetts, and the Wyoming seat now held by Sen. Crippa who is not a candidate for reelection.

### I. Two Lines of Strategy

When the campaigning got under way on Labor Day, morning line odds

# SALES CAUSER supreme!



Gorgeous  
**RONSON**  
Windsor  
Showing  
**YOUR FIRM NAME**  
**BRILLIANTLY**  
**PERMANENTLY**

Plastic Inlaid Adv't. Exclusive with Emeloid

Just the greatest sales-maker, customer-keeper we ever saw! . . . 24-hour, 365-day ad . . . **YOUR** ad . . . always working, promoting, selling for you.

Your Trade Mark or Name embedded in a laminated hi-gloss plastic disc . . . an integral part of the world-famous, most prized Ronson Windsor lighter; with jacket of gleaming black gem-tone plastic. Price List on request.

The  
**Emeloid**  
Co.  
1237 Central Ave.  
Hillside 5, N. J.  
**DESIGNS • PRODUCES**  
Advertising and  
Premium Specialties



## ALONG THE WAY... OF **TWA**



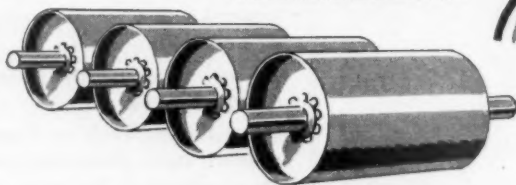
### Importer of Italian men's belts chalks up 5-way saving via **TWA** air cargo

N.Y. IMPORT FIRM OF GREENHALL BROS., INC., REGULARLY USES TWA TO CUT TRANSIT TIME ON THEIR DOMINO BELTS FROM 3 WEEKS TO JUST 3 DAYS ON SHIPMENTS FROM ITALY. ALSO REPORTS: 1. HIGHER TURNOVER. 2. LOWER FORWARDING COSTS. 3. NO PILFERAGE. 4. LESS CONTAINER COSTS. 5. MUCH REDUCED INSURANCE. APPLY THESE SAVINGS TO YOUR OWN BUSINESS. BE SMART. SHIP THE MODERN WAY OF TWA.



### Dozens of Swiss Misses

WEAR LUXURIOUS "CHARMFIT" BRAS MADE IN HOLLYWOOD...SHIPPED DIRECT TO ZURICH VIA TWA TRANSATLANTIC ALL-CARGO FLIGHTS. SMART PROMOTIONAL IDEA, TOO.



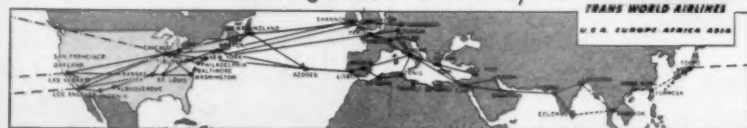
### Quartet of heavy-duty pulleys,

EACH WEIGHING OVER 2000 LBS., WERE RECENTLY RUSHED FROM AMERICAN PULLEY CO. PLANT IN PHILA. VIA OVER-NIGHT TWA "SKY MERCHANT" FLIGHT TO BUYER IN ARIZONA. EASY. QUICK. ECONOMICAL. CALL TWA FOR RATES TODAY.



All TWA Flights carry Air Mail  
Air Freight and - in U.S.A. - Air Express

**TWA**  
TRANS WORLD AIRLINES  
U.S. EUROPE AFRICA ASIA



indicated that the Republicans have a good chance to retain the Senate, but the Democrats are favorites to wrest control of the House.

Actually, the Democratic strategists don't consider the House in the bag, nor do Republican experts consider it a lost cause. The Democratic farm meeting (BW-Sep. 4 '54, p.30) at Sioux Falls, S. D., and the GOP strategy session in Cincinnati showed that leaders of both parties plan a last-ditch fight for the House.

Those predicting a Democratic sweep base their claims primarily on the traditional off-year swing to the "out" party, when voters vote against the "ins." There is some doubt as to the effectiveness that "against" sentiment will play in the election. Democrats who supported Eisenhower in 1952 will, by and large, return to the fold and support Democrats for Congress.

But Eisenhower still is popular. There isn't the "against" sentiment building up comparable to the animosity stirred up toward the Democrats in 1952.

• **Republican Side**—A highly significant factor in the campaign is that both parties moved into the home stretch gambling on issues that may not pay off.

The Republicans are betting heavily on the appeal of Eisenhower and his program. Their approach is: If you still like Eisenhower, vote for Republicans who can help put across his program.

Some of the old guarders, however, have their doubts about the appeal of a program in a local election. They wonder if reciprocal trade, statehood, or the St. Lawrence Seaway will have the appeal of local issues. They say that the voters should be given something to vote against—such as reminders of corruption and Communism and the "20 years of treason" theme pushed by Sen. Joseph McCarthy.

• **Sticks to Record**—Eisenhower has vetoed the "treason" approach, preferring to keep the campaigning on the record of his accomplishments—no war and full employment, plus his program. He will be an active campaigner himself, giving GOP Congressional campaigners a lift during the next 30 days by popping up all over the map for speeches and appearances.

Vice-Pres. Richard Nixon will be the dominant spokesman for the Administration in the campaign. McCarthy will be heard from, but not so loudly as he and his backers had hoped for. Some GOP candidates have made it clear that they don't want McCarthy speaking in their territory.

• **Rebuttal**—The Democrats are gambling on cashing in on discontent with Administration farm policies. Some of the more rabid Democratic high price



## THEY HAVEN'T SCRATCHED THE SURFACE!

Not these chair leg tips... molded of BAKELITE Polyethylene. They're kind of soft-surfaced... not quite bouncy, just comfortably flexible and quiet. Still, they're good and tough, and will wear a long time. Come in different colors, too.

The potential uses for BAKELITE Polyethylene are many and varied—the surface has not yet been scratched. You can put it to work as film... or in coatings, castings, moldings, extrusions, laminations. Any way it's used, chances are it will make products sell better, work better, or just plain easier to make. Better investigate.

**BAKELITE**

TRADE MARK

**Polyethylene**

**BAKELITE COMPANY**

A Division of Union Carbide and Carbon Corporation UCC

30 East 42nd Street, New York 17, N. Y.

In Canada:

Bakelite Company, Division of Union Carbide Canada Limited  
Belleville, Ontario



# PROOF!

## The Best Buy In Office Chairs is COSCO!

Compare Price!  
Compare Quality!

**BUY-A-GRAM CHART 1: PROOF OF HIGHER QUALITY**  
Cosco gives you far more chair for \$32.50\* than any other leading brand!

Features	Cosco Brand 15-S	Brand B	Brand C	Brand D
Zone 1 price (odd approx. \$2.00 for Zone 2)	32.50	33.50	31.75	34.90
Five posture adjustments including spring tension back	Yes	Yes	No	No
Formed base construction	Yes	No	No	Yes
2" rubber wheel casters, double race ball bearing	Yes	No	No	No
Saddle shaped seat—with foam rubber cushion	Yes	No	Yes	Yes
Steel curved padded back	Yes	Yes	Yes	Yes
Bonderized baked on enamel finish—vinyl coated fabric	Yes	Yes	Yes	Yes

You'll agree Cosco  
out-values 'em all  
...at the price  
—even those far above  
the price!

**BUY-A-GRAM CHART 2: PROOF OF GREATER VALUE**  
Cosco delivers as many luxury features as chairs costing up to 100% more!

Features	Cosco Brand 15-S	Brand B	Brand C	Brand D
5 posture adjustments including spring back	Yes	Yes	Yes	Yes
Formed base construction	Yes	Yes	Yes	Yes
2" rubber wheel casters, double race ball bearing	Yes	No	Yes	No
Saddle shaped seat—with foam rubber cushion	Yes	Yes	Yes	Yes
Steel curved padded back	Yes	Yes	Yes	Yes
Bonderized baked on enamel finish—vinyl coated fabric	32.50	65.00	49.75	49.50
Zone 1 price (odd approx. \$2 for Zone 2)				

### Here's the Secret of So Much Chair for So Little Money

When you buy Cosco Chairs, you don't pay hidden profits. Unlike other manufacturers, Cosco does not buy chair parts from suppliers and then assemble them.

Except for the casters, Cosco mass produces *all* the component parts in their chairs. That's why—for only \$32.50\*—

Cosco can deliver as many luxury features as other chairs priced up to \$65.00! Get the full story. Mail the coupon today.

Model 15-S  
Secretarial,  
only

**\$32.50\***

—and it's so comfortable!



\*\$34.45 in Texas  
and 11 Western States  
(Zone 2). Other models  
also available.

**COSCO** Office  
Chairs

© 1954 HMC

Please attach coupon to your letterhead—  
HAMILTON MANUFACTURING CORPORATION  
Dept. BW-J, Columbus, Indiana

Please send me complete information about Cosco office chairs and detailed Buy-A-Gram Charts. I am especially interested in:

Secretarial Chairs ☐ Executive Chairs ☐  
Conference Chairs ☐

Firm.....  
By.....  
Address.....  
City..... Zone..... State.....

support spokesmen will tell you that the Administration's stand in favor of flexible supports in itself guarantees a Democratic Congress.

However, those taking this view may not have studied their election statistics too well. There just isn't any such thing as a marginal Republican farm congressman—that is, representing a purely agricultural district—who won by 55% or less in 1952. Most of the Midwest and New York State farm seats are carried by safe majorities ranging from 58% to 80%. And in most of these areas where there was resentment against Administration farm policies, GOP congressmen were just as vociferous against Secy. Benson's flexible farm supports as were Democrats such as Sens. Robert Kerr and Hubert Humphrey.

Where the Democrats stand to collect on the farm issue is not so much among farmers as in urban areas near farm country that are affected because the farmer is buying less.

## II. Up in the Air

One of the big unknowns in the campaign is how much popularity Eisenhower can transfer to individual Republican candidates. Or to put it another way, how much should be subtracted this year for help that GOP candidates got from Eisenhower's name being on the 1952 ballot? For instance, if you took away 3% from all GOP candidates in 1952 as the help they got from Eisenhower, it would knock off 22 Republicans. There is no way of knowing just how much Eisenhower helped Republican candidates, except that he carried almost 300 Congressional districts, while GOP candidates carried only 221.

Another unknown at this point is how much life the Citizens for Eisenhower will be able to give individual GOP candidates. This independent group was effective in some areas in 1952. Some old guard Republicans aren't keen about the Citizens operation, but practical politicians say that if the Citizens can turn up an extra thousand votes or so in a close district, it could swing the vote.

• Also—Prosperity—or the lack of it—will carry weight, of course.

Employment is high generally, but pockets of unemployment have increased during the past year. In 149 major labor areas in July, 1953, there were five areas with actual labor shortage and only 16 with substantial labor surplus. But a year later, the labor shortage areas had all disappeared and in their place were 53 areas with substantial unemployment.

• California Climate—A fight in California between the Nixon and Knowland forces could hurt Republican

# This is Philadelphia



A new era is underway these bustling days in Philadelphia—city of homes and history, of Franklin Institute and Fels Planetarium, of Rittenhouse Square and Chestnut Hill.

Penn Center is now rising on the site of the old Broad Street Station to give central city a new face of youthful vigor. This \$100,000,000 development will cover 22 acres. Plans include four 20-story office buildings, a 1000-room hotel, a 500-unit apartment house and a transportation center grouped around an open esplanade, with shops.

Building activity extends far beyond the city limits. It fans out to encompass

the vast 14-county Greater Philadelphia Market. Here live more than four and one-half million people. They are home-owning, home-loving family folks. They buy carefully and wisely. They'll buy your product again and again once convinced of its merit.

These are the people who read The Evening and Sunday Bulletin—the newspaper that reflects the needs and interests of the entire region.

The Bulletin is Philadelphia's favorite newspaper—Philadelphians buy it, read it, trust it and respond to its advertising.

The Bulletin is Philadelphia.

**In Philadelphia  
nearly everybody  
reads The Bulletin**

**Advertising Offices:**  
Philadelphia, Filbert and Juniper Streets;  
New York, 285 Madison Avenue;  
Chicago, 520 N. Michigan Avenue

**Representatives:**  
Sawyer Ferguson Walker Company in  
Detroit, Atlanta, Los Angeles, San Francisco

"THIS IS GREATER PHILADELPHIA," a 64-page brochure about the Greater Philadelphia Market—its people and its industrial growth—is now available. Please use your business letterhead in requesting your free copy.

a that  
avor of  
tees a  
w may  
n sta-  
t any  
blican  
enting  
o won  
of the  
farm  
orities  
nd in  
e was  
a farm  
e just  
nson's  
Dem-  
r and  
o col-  
much  
s near  
ecause

n the  
ularity  
vidual  
out it  
e sub-  
GOP  
name  
tance,  
GOP  
they  
knock  
way of  
hower  
except  
ngres-  
idates

int is  
Eisen-  
vidual  
ndent  
as in  
licans  
opera-  
that  
extra  
strict,  
f it—

, but  
e in-  
149  
there  
short-  
labor  
labor  
l and  
sub-

Cali-  
know-  
blican





## ALL THIS... AND DICTATION TOO!

With a Peerless DRI-STAT photocopier, a good secretary can get out a stack of copies like this and still keep up with her regular work — without overtime.

Letters, invoices, orders, reports, charts, drawings, technical articles, tax returns—DRI-STAT makes clean, sharp, black-and-white copies of them all, in just one minute per copy. Originals on opaque paper—printed on both sides—in colored inks, with half-tones, bearing pencil notations—DRI-STAT can reproduce more kinds of material than any other photocopy equipment.

Ask your Peerless distributor to show you how DRI-STAT can pay for itself quickly in your office. Call him for a demonstration, or mail the coupon.

# PEERLESS DRI-STAT



PEERLESS PHOTO PRODUCTS, INC.  
Shoreham, L. I., New York BW-9

- ☐ I'd like to see a demonstration of DRI-STAT on my work.
- ☐ Please send me your free brochure describing DRI-STAT.

NAME.....

TITLE.....

ADDRESS.....

chances, particularly in the case of Sen. Thomas Kuchel, who may find Nixon precinct workers failing to deliver for him.

Another factor in California that has led Democrats to believe that they will pick up at least three seats is the change in listing party affiliation in the primaries that resulted for the first time in years getting Democrats into all of the 30 Congressional elections in November. Previously, Republican candidates frequently won both nominations through the practice of cross-filing, with the result that they were unopposed in November.

## Unwanted Nike

Army has run into strong opposition from cities over its plan to set up net of guided-missile defenses.

The U.S.—and the Army Antiaircraft Command, in particular—had to face up to one inescapable fact this week: People don't want mysterious push-button weapons in their backyards, even though it means protection for them.

This fact has become more and more evident over the past few months as the Army has sought to get its program for Nike guided missile installations off the ground (BW—May 8 '54, p108). The truth is the program is behind schedule right now. And most of the blame for the lag has to be pinned on the public.

Since the Army started a land hunt for the 40-odd Nike installations it plans to spot across the northern half of the country, it has run into practically every sort of opposition imaginable. Complaints—usually along the lines of, "Why pick this spot?"—have ranged from official beefs by mayors to senseless criticism from cranks. Real estate groups have protested against loss of land values; farmers have complained about possible damage to crops and livestock. Although the squawks have been stronger in some areas than in others—some cities, in fact, have not complained at all—the over-all effect has been to slow down the building of the air defense system.

• **Misunderstood**—For its part, the Army feels that much of the trouble has been caused by public misunderstanding of how the Nike system would work and, particularly, how it would fit into the local community.

A Nike installation (or battery) is actually made up of two parts—a launching area and a control area, which together take up, at most, about 40 acres. The launching site is the business end

the **FOCAL  
POINT**  
of technical progress  
in the packaging and  
materials handling fields

**9th**  
annual  
national  
Industrial Packaging  
and Materials Handling  
*Exposition*

- Exhibit of products, equipment and materials
- Short Course Educational Program (sponsored by Dept. of Mech. Eng., University of Illinois)
- National Packaging and Materials Handling Competition

*Plan now to attend*  
**CHICAGO COLISEUM**  
SEPT. 28, 29, 30—1954

Produced by **SOCIETY OF INDUSTRIAL PACKAGING  
and MATERIALS HANDLING ENGINEERS**  
111 West Jackson Boulevard, Chicago 4, Illinois

## DON'T BUY... Lease YOUR TRUCKS

From experienced NTLs suppliers of "All-Service" leasing

# National TRUCK LEASING SYSTEM

Ask our best boosters—NTLS customers! Locate our operating company in your area by this trade mark in the phone book. To learn how truckleasing releases capital, gives you a perfectly maintained fleet engineered for your use—everything supplied but the driver—write for directory of NTLS leasing companies and brochure.

**NTLS**  
Dept. B-9 22 E. Jackson Blvd., Chicago 4, Ill.

We'll buy your present fleet!

## LOEW'S INCORPORATED

MGM PICTURES • THEATRES • MGM RECORDS



September 1, 1954  
The Board of Directors has declared a quarterly dividend of 25c per share on the outstanding Common Stock of the Company, payable on September 30, 1954, to stockholders of record at the close of business on September 14, 1954. Checks will be mailed.

**CHARLES C. MOSKOWITZ**  
Vice Pres. & Treasurer

See Clues on page 194



of the battery, where the rockets are fired. The control area is primarily a mass of radar equipment. Its purpose is to find and track the enemy aircraft and to guide the Nike to its target. This area can be anywhere from 1,000 yd. to 4 mi. from the launching site, but the two must be within view of each other.

• **Fear**—So far, the primary objection to Nike in the public's mind seems to be a fear of falling debris from an exploded missile. To this, the Army has pointed out that in wartime the choice would seem to be between possible falling debris and possible destruction. The Army has also made it clear that the Nike installations are not to engage in "practice." The installation remains silent and unnoticed unless an actual enemy bomber gets through all other air defenses.

It's true that the Nike guided missile uses a detachable rocket tank called a booster, which is designed to give the weapon an initial high-speed surge away from the firing platform. Originally this booster, looking much like a huge steel milk bottle and filled with an explosive propellant, fell intact after its rocket fuel was expended. The Army designed its installations from the first to include sufficient land to let the booster fall back into the site.

But even the danger of a misplaced fall has been eliminated now. Glenn L. Martin Co. has started producing a frangible booster that reduces itself to little more than confetti after it has expended its rocket thrust.

• **Realty Loss**—Another important factor in opposition by citizens' groups is fear of what such an installation might do to real estate values. The Army has no positive answer to this—except to say that military installations in the past have seldom decreased real estate values. In fact, they usually raised them.

Potential damage to crops—another objection that has been raised—simply does not exist, the Army says. There is no harmful byproduct in the weapon installation or in its operation. The only possible crop loss would come if a particular farmer's crop land were picked as the only logical site for the battery. In that case, of course, he would be paid for the land.

• **High-Handed**—Apart from these specific beefs—some of the disgruntled feelings among the public are clearly the result of what it considers a high-handed attitude on the part of those charged with land acquisition and the engineering details of the construction program.

In the early phases of the program, a security dictate from Washington forbade surveyors and engineers from disclosing why they wanted to invade a land owner's private property. As a result, many of the owners saw no



## ...for Lower Distributing Costs

Another top reason why industry is headed Southeast: The area's vast network of through and connecting railroads that cut distributing costs by fast, dependable hauling of raw materials and finished products. Twelve major railroads, many completely dieselized, and thousands of miles of new highways link resources with markets in this ever expanding consumer-industrial gold mine of 28 million people.

### READY-MADE RESOURCES FOR PROFIT!

Here's every natural and man-made resource you need to operate successfully in the Southeast: low-cost utilities; ample water; raw materials; plentiful, intelligent and willing labor; mild climate; cooperative local governments. And a bank that will help you find a suitable location, help finance your relocation . . . **THE FIRST NATIONAL BANK OF ATLANTA** . . . a bank that can handle your requirements.

Experienced Industrial Location Specialists are available to do your spadework. They are ready to start this minute to help you find the best location for your operation.



**Write today.** All inquiries held in strictest confidence. Address Business Development Department, The First National Bank of Atlanta, Atlanta, Georgia.

**...in Business  
for Your Business**

(Capital Funds in excess of \$22,000,000)

**LOADING AREAS** are easily heated with Torridors. Powerful centrifugal fans overcome drafts, directional nozzles put heat exactly where it's needed.



**LOCKER ROOMS** require heating and ventilating, too! Here a Torridor brings in fresh, outdoor air . . . warms and filters it . . . distributes it evenly where needed.



## This one unit can solve yourp ventilating, air cleaning or processd

*Use this Trane Torridor with or without ducts . . . in large areas or small . . .  
for comfort or process heating and ventilating needs!*

**Complete versatility!** Need ventilation, filtering . . . and large heating capacity? TRANE Torridor is your answer! *One unit* produces as much as 1½ million Btu's . . . filters, warms and circulates up to 28,000 cu. ft. of air per minute.

**Locate Torridors anywhere!** Units can be hung from walls or girders, mounted on ceilings, or set on the floor. A wide choice of nozzle arrangements (top, side or bottom discharge) lets you direct warmth in any desired direction.

**For hundreds of applications.** Since Torridors can operate against relatively high air pressures, they can be used as free delivery units or with ducts. Heating, ventilating, air cleaning, process heating or drying—the amazingly versatile, high-capacity TRANE Torridor solves any of these problems.

**What the Torridor will do:** The Torridor can be used to heat large areas where air must be spread over great distances, is equally suitable for heat-

ing numerous small rooms when used as a central system with ducts. It can be used as a combined heating and ventilating unit . . . for blanketing doorways with heat . . . for filtering the air . . . for special applications such as fog removal, ice melting, drying and curing.

For complete details on how TRANE Torridors can help you, contact your engineer or nearest TRANE Sales Office, or write TRANE, La Crosse, Wis.

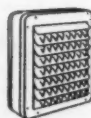
Floor-Type  
Torridor



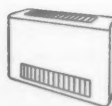
Projection  
Unit Heater



Horizontal  
Unit Heater



Deluxe Floor-Type  
Unit Heater



Gas-Fired  
Unit Heater



**PAINT ROOMS** become starved for air because of large exhaust fans. Torridors end negative pressures, bring in plenty of make-up air, properly warmed and filtered.

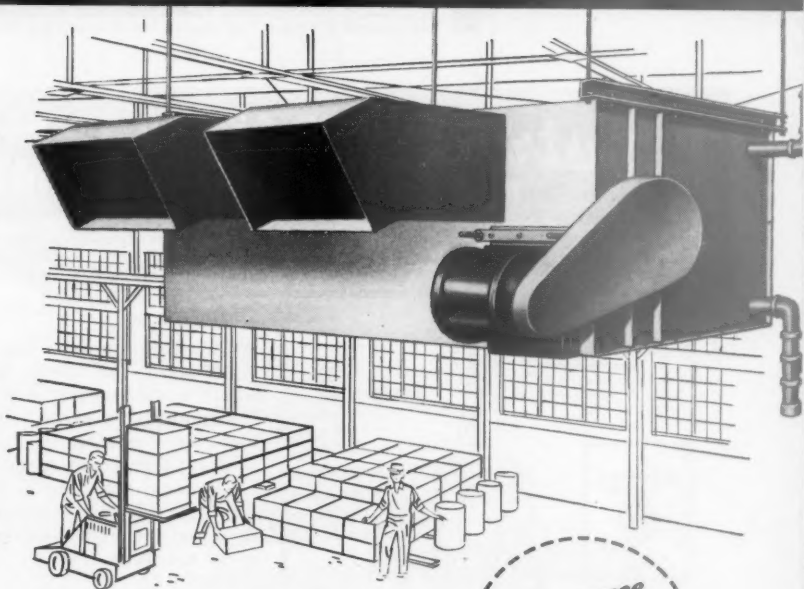
**LARGE OPEN AREAS** need lots of heat—a job for Torridors. Here powerful, high-capacity units, mounted up and out of the way, bring comfort to workers below.



ourplant heating,  
essdrying needs!

#### SPECIAL TORRIDOR FEATURES

- **Use present heating system.** Torridors are available with high or low pressure steam or hot water coils for complete installation versatility.
- **Quiet operation.** Precision-built centrifugal fans are scientifically designed for quiet operation . . . accurately balanced electronically to eliminate vibration.
- **Built for service.** Heavy-gauge casing, highest quality ball bearings and oversized, cold finished, solid steel fan shafts assure long-lived dependability and service.
- **Simplified maintenance.** Removable panels, hinged motor blocks (easy belt adjustment) and accessible coil and bearings cut maintenance time and costs.



one source  
•  
one  
responsibility

# TRANE

manufacturing engineers of  
**AIR CONDITIONING, HEATING**  
ventilating and heat transfer equipment

The Trane Company, La Crosse, Wis. • Eastern Mfg. Div., Scranton, Pa. • Trane Co. of Canada, Ltd., Toronto • 90 U.S. and 15 Canadian Offices

en used  
It can  
ing and  
marketing  
filtering  
ications  
g, drying

TRANE  
ect your  
s Office,  
s,





# CMP

## COLD ROLLED STRIP STEEL

### OFFERS

some  
realistic  
ways  
to reduce  
end-product  
costs  
THROUGH  
PRECISION  
GAUGE  
TOLERANCES

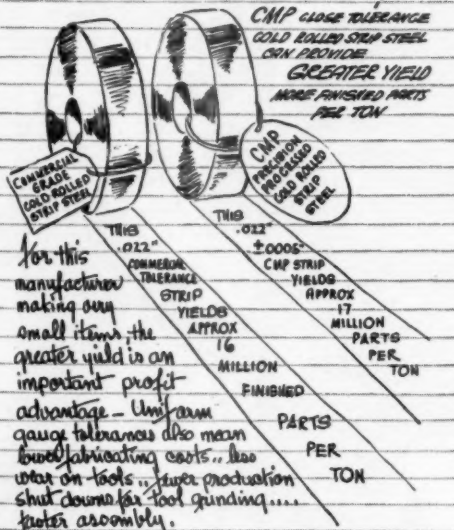
YOUR INQUIRY IS INVITED

#### CMP PRODUCTS

Low carbon, electro zinc coated,  
high carbon, tempered spring  
steel, stainless and alloy.

## Typical Case

1,000,000 MORE PARTS PER TON



### the Cold Metal Products co.

GENERAL OFFICES: YOUNGSTOWN 1, OHIO  
PLANTS: YOUNGSTOWN, O., INDIANAPOLIS, IND.

SALES OFFICES: New York • Cleveland • Detroit  
Indianapolis • Chicago • St. Louis • Los Angeles • San Francisco

## USE Industrial FOR HAND GEARED CRANES GREATER ECONOMY



\*Industrial Motor-Driven  
Cranes are recommended  
where high production  
rates must be maintained  
or runways are long.



When machinery or heavy  
loads are to be moved and  
where accurate spottings of  
these loads is a necessity  
Industrial Cranes do an out-  
standing job. These ruggedly  
built smooth operating cranes  
are ideal where runways are  
short and the production cycle  
is not too rapid.\*

INDUSTRIAL CRANE & HOIST CORP  
337 N. Ada St., Chicago 7, Illinois

Send Copy of Hand-Geared Crane Bulletin.

NAME \_\_\_\_\_  
COMPANY \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY, STATE \_\_\_\_\_

HG 654

## INDUSTRIAL CRANE & HOIST CORPORATION

(formerly Industrial Equipment Co.)

337 NORTH ADA STREET

CHICAGO 7, ILLINOIS

Overhead Cranes • Jib Cranes • Monorail Systems • Crane Runways  
Representatives in Principal Cities

reason why they should allow the military people to trespass. This, of course, made for arguments. Later, Army officials permitted a "minimum of intelligence" to be given the land owner concerned. But by this time, the public relations damage had been done.

• Cases—In Los Angeles, for example, Army personnel selected a site near the municipal airport for one of the local Nike installations. The city objected on the grounds that the missile area would create a hazard in the approach of air traffic. As a substitute, it offered several alternate sites, one of which it said it would lease or sell to the government for \$1.

Local Army officials, however, remained adamant. Finally, Mayor Norris Poulson took the dispute to Washington, with the result that top military officials were sent out to arbitrate. In this instance the city was right, and the installation is to be relocated.

In Cleveland, Army engineers picked a 30-acre site in the center of a 150-acre park that the city has spent \$20-million in developing.

Edgewater Park, which is west of the Cuyahoga River on the lake front, is the only public waterfront spot left in the city. The Army's launching site would be built between the bathing beach and the yacht club, and would mean the scrapping of the park's baseball diamonds.

Mayor Anthony J. Celebrezze has spearheaded the city's opposition to the missile battery, calling the Army's choice of site "untenable" and "unjust." Cleveland proposed three alternate sites, but the Army turned them down on the ground that it has no money for purchasing or filling in land. At the moment, the situation is static.

• Baltimore—Of the seven sites proposed for Baltimore, three have caused trouble. As a result, in one case a control area had to be shifted, in another a launching area moved, and in a third both launching and control sites had to be relocated. The main trouble was that most of the spots picked involved valuable farm lands; owners either jacked their prices or refused to sell. In the instance where the launching area had to be shifted, the engineers had picked a private fair ground.

At Holmdale, N. J., one of the first areas to be surveyed by the Army, rumors got around that more than 500 acres—instead of 40—would be needed. This was during the time when security was extra tight. The secrecy simply added force to talk that atomic warheads would be stored in the town, and that all the bridges in the area would have to be rebuilt to withstand unusually heavy loads. Finally, the Army came in and explained just what it was actually doing. Things are peaceful in Holmdale now.



# "Preference" FILE

## FOR FINISHING PROBLEMS

Study of another case where only the finest in finishes . . . Arco, of course . . . could meet the demands of the engineers at National Homes Corp.



**1 ARCO PREFAB COATINGS**

### for the NATIONAL PACEMAKER

Arco Paints, tailored to National Homes specifications, add beauty and service to fashionable, low-cost National Pacemakers . . . have been used on these famous homes since 1940, ever since the first model went into production. Alkyd wall finishes, exterior primers, shingle stains, and house paints all help round out the National Homes package.

**OPEN**  
**THE NATIONAL HOMES**  
**PACEMAKER**

as featured during National  
Homes month in the September  
issues of LIFE SATURDAY  
EVENING POST BETTER  
HOMES & GARDENS WOMAN  
AN'S HOME COMPANION

Prominent in Arco's files are similar case studies . . . success stories of Arco finishes on famous products and structures all over the world. Write for details.

2 INDUSTRIAL FINISHES

3 AUTOMOTIVE REFINISH PRODUCTS

4 COLOR MACHINES

5 MASONRY COATINGS

6 METAL PROTECTIVE PAINTS

7 ROOFING MATERIALS

8 ALUMINUM PAINTS

9 DUM DUM COATINGS

10 DECORATIVE WALL FINISHES

11 MILL WHITES

12 OPTONIC COLORS

Gentlemen: Please send technical specifications on product checked.

1 2 3 4 5 6  
7 8 9 10 11 12

☐ Please send information on special finishing problem outlined in attached letter.

NAME \_\_\_\_\_

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_



Paints, Lacquers,  
Varnishes, Enamels,  
Interior and Exterior  
Protective Coatings  
TRADE MARK

**TESTED FIRST TO LAST**

THE ARCO COMPANY • 7301 BESSEMER AVE. • CLEVELAND 27, OHIO, USA  
A Subsidiary of American-Marietta Company

# REGIONS



TACONITE loader Harold Hiekkila sees a great future in Babbitt. At 29, he already makes \$2.40 an hour.

Babbitt, Minn., is one of the small towns that is being rejuvenated by new activity in the Mesabi iron belt. But even though Babbitt is growing like the proverbial weed, the rough-and-tumble air of most mining towns is conspicuously absent.

## Mining Town



SHOPPING CENTER at present is a single building embracing everything from a general store to a barber shop.

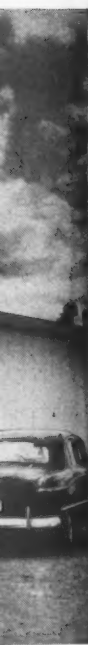
owns  
ivity  
ough  
weed,  
ining



BETWEEN WORK SHIFTS mine workers flock to Birch Lake. All the men and most of the women are ardent anglers.

# owlife Now Is Like Anywhere

(Story continues on page 80)



building em-  
rber shop.

Sept. 11, 1954



HOUSES assembled in a town 30 miles away are hauled in on trailers. Rents range from \$62.50 to \$82.50 a month.



RECREATION is no problem to new residents. Picnic grounds are a dime a dozen in nearby North Woods.

BUSINESS WEEK • Sept. 11, 1954



THE TOWN OF BABBITT is still moving in—at the rate of three or four houses a day. About all that has to be done to make them livable is

## Taconite Brings New Life to Mesabi

(Story starts on page 78)

Theoretically, the pictures above and on the preceding pages are all wrong. Instead of showing an up-and-coming community bustling with life, they should portray a ghost mining town, haunted only by a few old-timers sunning themselves on benches and

reminiscing over the good old days.

Babbitt is one of the many little towns in the Minnesota iron belt that have been waiting for the rich iron ores in the Mesabi to run out. While reserves still total well over 1-billion tons, it's increasingly hard to mine this ore.

To the despairing towns, it looked as though Lake Superior's importance as a supplier of ore would diminish to the point where the region's economy would hang on the seasonal tourist and resort business.

• **New Look—Now**, increased activity



TOWN MANAGER Frank McNaughton (seated), combined landlord, rental agent, handyman, and mayor, keeps tabs on . . .



WORKERS who are being trained at Babbitt for supervisory jobs at other plants opening in the range. Once off the job . . .





ke them liv is to hook up the electricity and move in the furniture.

ge 78)

looked as  
rtance as  
sh to the  
economy  
ourist and  
I activity

in taconite is dispelling a lot of that gloom. The steel industry is looking for new sources of ore in the iron-bearing rock of northern Minnesota and upper Michigan (BW—Jun.19'54, p94). Mining companies are pouring millions into new processing plants that will extract usable iron ore from taconite and jasper, which contain low-grade ore. And along with it, the com-

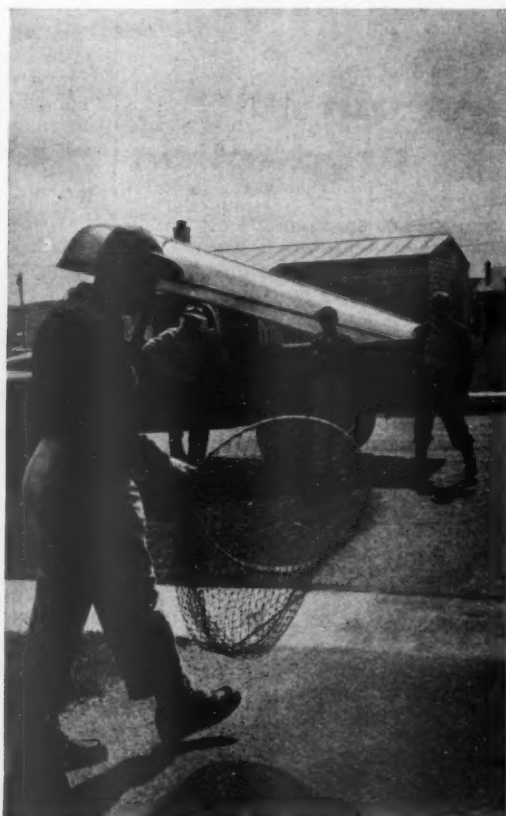
panies are building new towns for plant workers, railroads to move the ore from the ranges to Lake Superior, harbors and loading docks so that the ore can be carried down the lakes to the steel mills.

As these companies move more and more back into the region, the little towns that will house the new equipment and the workers to operate the



supervisory  
e job . . .

ot. 11, 1954



FISHING GEAR is loaded onto and into cars, and they're off to the fishing grounds.



**STEP  
UP**

## EFFICIENCY

*by cutting down on steps!*

You can talk to any executive or employe in your organization *instantly* . . . when you have RCA Modernphone.

Modernphone gives you a completely private intercom system . . . from 2 to 30 or more stations, without interfering with your phone switchboard. Low initial and operating costs.

**WRITE FOR BOOKLET**, or free demonstration in your own office, without obligation. RCA Engineering Products, Dept. I-26, Building 15-1, Camden, N. J.

## RCA MODERNPHONE

Today's Most Modern Intercom System

- Simple push-button operation
- Does not broadcast your message
- Helps cut switchboard load



SOUND PRODUCTS

**RADIO CORPORATION  
of AMERICA**

Engineering Products Division  
Camden, N. J.

In Canada: RCA VICTOR Company Limited, Montreal



## MERRY-GO-ROUND

straightens out  
electrical harness production

Automatic home washer wiring harnesses are made up of about 70 to 100 parts—wires from 6 inches to 5 feet long, dozens of terminals, contacts and connections. Formerly bench-built, production was slow, cluttered, inefficient.

We conceived this merry-go-round conveyor, where each operator adds part of the growing harness assembly as the matrix boards pass her station. Stock is carried on the overhead conveyor within arm's length at left. Result: four times the harness production with the same number of operators.

This is just one example of mechanized production engineered and built by Mechanical Handling Systems for greater efficiency and lower costs. Our experience and facilities are available to solve your production problems, too.

Call in the MHS engineer

## Mechanical Handling Systems Inc.

AND SUBSIDIARIES

4600 Nancy Ave., Detroit 12, Michigan

Offices in Principal Cities

FACTORIES: Detroit, Mich. • Fairfield, Iowa • Albany, N.Y. • Windsor, Ontario



mines are getting set for better times.

• **Prosperity, Not a Boom**—While nobody expects another land-office boom, there is a firm belief that the iron range country's economy is going to grow rather than shrink. It's evident in the way businessmen are planning for the years ahead, in the way workers are pledging future income to purchase houses, in the way banks are making loans for consumer items, for housing, for business expansion.

Already, mining companies have invested more than \$500-million and—with the present taconite-jasper program still in its early stages—businessmen say that another \$500-million could easily be invested within the next 10 years.

• **The Lucky Towns**—Taconite activity is concentrated at five sites in northern Minnesota—Babbitt, Silver Bay, Aurora, Partridge Lake, and Two Islands.

At Babbitt, a pilot plant of Reserve Mining Co.—jointly owned by Republic Steel and Armco Steel—is turning out 300,000 tons of iron ore concentrate yearly, handling 900,000 tons of flint-like taconite rock quarried from nearby deposits. Three miles away, a complete town is being built for workers. There are close to 200 occupied homes here, and 800 inhabitants. By the end of the year, the town will have 371 homes, a school, and shopping center.

At Silver Bay, on the shores of Lake Superior, Reserve is erecting facilities to turn out 3½-million tons of concentrate a year, to be shipped over a new 47-mile railroad from Babbitt. On the adjoining townsite, about 575 houses will be under roof by the end of the year. The community already has 900 residents. By the end of 1956, Silver Bay will grow to 850 houses and 3,500 population. If the company follows through on its plan to expand to 10-million ton capacity, the town will eventually have 1,500 homes and 6,300 population.

At Aurora, Erie Mining Co.—owned by Bethlehem Steel, Youngstown Sheet & Tube, Interlake Iron, and Steel Co. of Canada—has started work on a plant expected eventually to have a 10-million ton output.

At Partridge Lake, a few miles south of Aurora, Erie is building a new town to house workers for the Aurora workers. These will be put in units of 200, as housing needs develop.

At Two Islands, on Lake Superior, will be the lake shipping point for Erie's concentrate. A 63-mile railroad is being built to connect Aurora with Two Islands, where a harbor, docks, and power plant will be erected.

A third major taconite project is that of Oliver Iron Mining Div. of U.S. Steel Corp. This is located near Virginia, Minn., and is turning out 500,000 tons of concentrate yearly. Oliver will

# Ultra-Modern Design



Administration and Research Center  
S. C. Johnson & Son, Inc., Racine, Wis.  
Architect: Frank Lloyd Wright  
Consulting Mechanical Engineers:  
Samuel R. Lewis & Associates



**Says: Adrian Wilson,** Power Plant Assistant Manager  
S. C. Johnson & Son, Inc.  
Racine, Wisconsin

*"Our plant uses an average of 900 tons of coal per month. At the conclusion of a recent analysis of relative fuel costs, we were unable to justify a change from coal to any other fuel. In burning coal the modern way, we have steadily improved the efficiency of our power plant."*

If you plan to modernize—or to build a new plant, be sure to investigate the convenience and money-saving advantages of coal when burned with modern equipment.

You can enjoy automatic operation and save on labor by installing up-to-date coal-feeding and ash-handling systems. And you can eliminate dust or smoke nuisances with such devices as dust collectors and cinder rejectors. Often such equipment can pay for itself in fuel and labor savings in only a few short years.

Get the advice of a consulting engineer. He can make a fuel analysis for you. He can advise you on what equipment can best fill your specific needs and return you a big saving year after year with coal.

## ...fired by coal

In the famous plant of Johnson's Wax, modern equipment makes coal a clean and automatic fuel . . . and saves dollars year after year.

### YOUR BEST BUY IS BITUMINOUS

- ✓ Today's lowest-cost fuel, in most places, is Bituminous Coal
- ✓ The most stable fuel in price is coal, because coal reserves are virtually inexhaustible . . . coal mining is highly mechanized.
- ✓ The safest fuel to store and use is coal.
- ✓ Your best bet for saving dollars is coal . . . for modern equipment greatly multiplies coal's inherent advantages.

Additional case histories, showing how other types of plants have modernized and saved money by burning coal with modern equipment, are available upon request.

### BITUMINOUS COAL INSTITUTE

A Department of National Coal Association  
Southern Building, Washington 5, D. C.

FOR HIGH EFFICIENCY  FOR LOW COST  
**YOU CAN COUNT ON COAL!**

r times.  
hile no-  
boom,  
n range  
o grow  
in the  
for the  
ers are  
urchase  
making  
housing,

ave in-  
and-  
er pro-  
business-  
million  
he next  
activity  
orthern  
Aurora,  
ds.  
Reserve  
epublic  
ing out  
concentrate  
of Flint-  
nearby  
complete  
There  
es here,  
end of  
homes,

of Lake  
facilities  
ncon-  
a new  
On the  
houses  
of the  
as 900  
Silver  
d 3,500  
follows  
to 10-  
m will  
d 6,300

-owned  
a Sheet  
eel Co.  
a plant  
10-mil-  
s south  
w town  
a work-  
of 200,

uperior,  
r Erie's  
is be-  
h Two  
s, and

is that  
f U. S.  
ar Vir-  
00,000  
er will

11, 1954



# Anchor Ducts to Concrete and Cut Your Costs Up to 80% with the REMINGTON STUD DRIVER



"If It's Remington—It's Right!"

**Remington**



Listed and Approved by  
Underwriters' Laboratories, Inc.

## "Paid for itself in just two jobs."

Reports like this keep coming in from sheetmetal men about the Remington Stud Driver. They're setting up to 5 studs a minute in concrete and steel with this amazing powder-actuated tool. Savings run as high as 80%, compared to conventional fastening methods!

Economy like this gives your maintenance crew a definite advantage. They can speed up the job . . . get more work completed. And they can tackle almost any fastening job. Completely self-powered, the Stud Driver requires no outside source of power—no troublesome wires or cables. Its light weight and compact size bring every job within easy reach.

**It will pay you** to get all the facts about the Remington Stud Driver. It's been test-proved to be the world's speediest fastening system and can help you save money on the job—do the job faster and easier than ever before. Just send in the coupon for complete information.

## Questions You Are Asking

### QUESTION

What caliber cartridge powers the Stud Driver?

### ANSWER

32-caliber cartridges in six graded power loads are available. Colored heel caps make it easy to select the best power load for each job.

### MAIL THIS COUPON TODAY

Industrial Sales Div., Dept. B.W.-9  
Remington Arms Co., Inc.  
Bridgeport 2, Conn.

Please send me a free copy of the new booklet showing how I can cut my fastening costs.

Name

Position

Firm

Address

City  State

probably eventually go into a major project comparable with those of Reserve and Erie. Virginia, a city of 12,400 population in 1950, now claims 13,700 residents, expects to go to 20,000. The local chamber of commerce reports that it is getting half-a-dozen queries a day from homeseekers.

• **Problems Plus**—It's the same story in all the towns. One Duluth banker reported, "We've had \$1-million loans in the past 30 days related directly to taconite." But, as always happens when a small town suddenly gets big ideas, it gets big problems, too.

At Aurora, for example, school officials face the prospect of an enrollment double that of last year. These are the children of construction workers who have poured into the area by the hundred, and are living in trailers, in rented rooms, anywhere they can find shelter.

Erie Mining is paying to fix up two schools that have been partially closed in recent years. "That's just fine," says Aurora, "but where are we going to get the \$250,000 odd we'll need for teachers, supplies, fuel, light?"

• **Typical**—Aurora's school problem is typical of what's happening in other range towns, but there's one angle at Aurora that is probably unique.

About 85% of the town's school taxes come out of the pocket of Oliver Iron Mining, because Oliver owns that proportion of the district's mineral wealth. Now it's an Oliver competitor—Erie Mining—that is responsible for the city's bigger school population—so Oliver is yelping at the prospect of paying higher school taxes.

At Virginia, another problem has been anticipated and steps taken to meet it. The Virginia Hospital Commission, aided by mining companies, has sponsored a study of future hospital service requirements of the area. The recommended program, embracing seven hospitals in as many different range cities, calls for 296 more beds by 1955.

• **Year Round Jobs**—Basically, the future hope for the economy of this vast region—spanning thousands of square miles of two states—is geared to its continuance as a major source of the nation's iron ore.

The process of obtaining usable iron ore from taconite and Jasper closely approaches a manufacturing operation. Tremendous plants, filled with costly equipment, are needed to grind the rock to flour-like fineness, then separate the ore particles from the dross by magnetic or flotation methods.

Currently, most Lake Superior iron ore comes from open pits. From December to April, no ore is shipped on the lakes, and these open-pit mines close down. While there's work in preparing these mines for the following

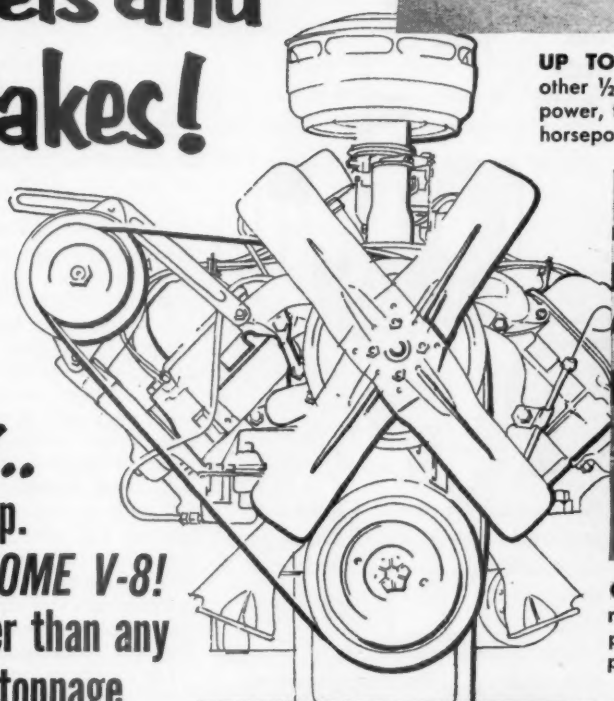


major  
of Re-  
ity of  
claims  
go to  
com-  
half-a-  
weekers.  
ory in  
ker re-  
ans in  
tly to  
when  
ideas,  
  
l offi-  
lment  
re the  
who  
hun-  
rs, in  
find  
  
p two  
rtially  
s just  
re we  
we'll  
ght?"  
em is  
other  
gle at  
  
school  
Oliver  
s that  
ineral  
petitor  
e for  
on—so  
f pay-  
  
a has  
en to  
Com-  
panies,  
hospit-  
. The  
racing  
ferent  
beds  
  
e fu-  
s vast  
quare  
con-  
e na-  
  
iron  
ly ap-  
ation.  
costly  
the  
parate  
mag-  
  
iron  
De-  
ed on  
mines  
k in  
owing  
  
, 1954

# World's most powerful pick-ups, panels and stakes!



**UP TO 39.4% MORE POWER** than other 1/2-, 3/4-, and 1-ton trucks. It's low-cost power, too! Dodge V-8 pick-ups offer most horsepower for your truck dollar.



**Now...**  
new 145-hp.  
**POWER-DOME V-8!**  
More power than any  
other low-tonnage  
truck engine!

Test for yourself the flashing acceleration, the big power reserve of this new 145-hp. Power-Dome V-8 . . . the ultra-modern truck engine that gives Dodge pick-ups and stakes *more power than any low-tonnage truck!* Ask your dependable Dodge truck dealer to show you a new Power-Dome V-8 or a 110-hp. thrifty six!



**OFFERS MORE MILES PER GALLON** on regular gas—most hp. per cu. in. displacement of any popular truck engine—prove new Power-Dome V-8's economy.



**"NEW-TRUCK" POWER LASTS LONGER:** Power-Dome design . . . proved in higher tonnage models . . . means fewer power-stealing "hot spots" in combustion chambers.

*More proof that*  
**Dodge trucks offer a better deal for the man at the wheel!**

# DODGE <sup>"Job-rated"</sup> TRUCKS

# PHOTOSTAT • MICROTRONICS

(REG. U. S. PAT. OFF.)

## *The Finest of Equipment...*



FOR COPYING AND  
PRESERVING RECORDS  
OF ALL KINDS ON BOTH  
PAPER AND FILM

**T**oday . . . business and industry, and government, too, find ever-increasing need for quick, accurate, inexpensive copies on paper of records and subjects almost without end. At the same time, all are becoming aware of the space-saving and security advantages of copying and preserving their records on film.

PHOTOSTAT and MICROTRONICS equipment, of the very highest standard of quality, can best fill the needs for both . . . and for all!

With the manufacture of MICROTRONICS unequalled line of Microfilm Cameras, Enlargers and Film Processors, along with the time-honored line of PHOTOSTAT Photographic Copying Equipment and

Accessories, Photostat Corporation now offers the widest range of equipment available . . . for small, moderate-sized and the largest of requirements alike.

It is splendid equipment . . . properly sold . . . faithfully serviced. Justifiably it sets the standard for the best in photographic copying the world over. You should know about it before you purchase any photocopying or microfilming equipment.

We welcome the opportunity of talking over your copying problems with you without obligation and, if you wish, making specific recommendations for their solution . . . with worthwhile savings in time and money.

PHOTOSTAT is  
the registered  
trade mark of  
PHOTOSTAT  
CORPORATION

WRITE US FOR FURTHER INFORMATION

**PHOTOSTAT CORPORATION**

295 STATE STREET, ROCHESTER 14, NEW YORK

Service offices in most principal cities and in Toronto, Canada

year's operations, there still is considerable seasonality to mining employment.

This will be changed when the taconite plants start running. They will process ore the year round, building stocks in the winter. So employment will be stabilized, and more labor will be required to do this job.

• **Sour Note**—At the western end of the Mesabi, however, mining people aren't so cheerful. They're farther removed from the scene of this new activity. In that part of the range, the high-grade ore mines are starting to shut down or are reducing working hours because steel mills aren't chewing up so much iron ore as they did last year.

Even so, businessmen in cities like Hibbing are confident that in the long run the benefits of taconite will spread their way.

• **Smaller Scale**—On a far smaller scale, the situation in Michigan's upper peninsula is much the same as in Minnesota. One jasper concentrating plant is in operation near Ishpeming, and is due for enlargement; a second is proposed for Republic, Mich., a few miles away.

But where Minnesotans talk in terms of millions of tons of product per year, Michiganders use hundreds of thousands of tons. The relationship here is roughly comparable to the two state's iron ore output: Last year Minnesota shipped 81.3-million tons of ore, upper Michigan 16-million tons.

But as jasper increases in importance, Michigan's underground mines will require fewer workers. From the standpoint of employment, one will probably offset the other. Even so, some big underground mines will continue running for years to come—one such mine near Ishpeming has about 25 years of known reserves left.

• **Potential**—The upper peninsula has one other asset from the standpoint of mining. Tremendous deposits of low-grade copper in Ontonagon County are being opened up by White Pine Copper Co., aided by \$57-million in government money. With its mill, new townsite, job opportunities, the project has about the same benefit to the economy of the area as do the jasper developments.

Also like northern Minnesota, upper Michigan depends heavily on the tourist trade for dollar income. Right now, people up there are highly optimistic over the vacation trade potential. The new Straits of Mackinac bridge could double tourist traffic, add \$50-million a year to business volume.

These developments explain why bankers and business people are looking for better times ahead, rather than for a continuing deterioration. It explains why every bank in the areas has a loan volume as good as or better than it had six months ago.

---

# BUSINESS IN MOTION

---

## *To our Colleagues in American Business ...*

There is an interesting story behind the brass forging shown here. It is part of a high-pressure lubricator. Originally a casting was used, but this proved to be more expensive than expected, due to blow holes, sand inclusions and the like; there were too many leakers, too many rejects. It then was decided to assemble the part out of four different brass items. The bottom was a forging, the top was machined out of round brass rod, and the two side supports were rectangular brass rod. To assemble, the four parts had to be accurately aligned, and silver soldered together. The result was an improvement, but costs were still too high, due to the time-consuming assembly process, and the expensive silver solder.

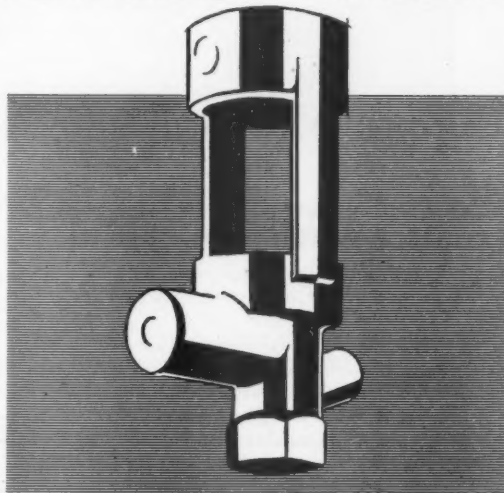
It was then suggested that the entire part perhaps could be made as a one-piece forging. Could Revere do it? We thought we could, and our forging people sat down with the lubricator manufacturer, studying blueprints and specifications. When both parties thoroughly understood both the possibilities and the limitations a bid was made, and accepted. Introduction of the forging on a production basis showed sizable economies. Machining is done more quickly, output is increased, rejects have decreased to practically zero. In addition, the part is better in every way.

The forging process is an excellent one, and has wider applications than many people realize. As in the case

reported here, rather intricate shapes can be forged, shapes that many people would consider would have to be built up of several parts. The Revere files contain many similar examples of parts formerly expensively put together but now delivered to the customer in a one-piece forging, with resultant economies.

Revere produces forgings in copper, brass and other copper-base alloys, and in aluminum alloys. Many forgings begin as extruded shapes which have the correct form to fit the forging dies with a minimum of "flash." When the dies close on the hot metal, design details, including names and numbers, are accurately reproduced. The metal is dense, being twice wrought, and has a typical smooth forged finish. Customers find that a Revere forging usually is ready for assembly after a minimum of simple machining operations, such as drilling and tapping a hole or two.

The point about this story is that Revere, as a supplier, was able to collaborate with a customer, and show how to use a special process to make an intricate part better and at less cost. Perhaps your business, no matter what it is, could benefit by the knowledge and skill of your suppliers. They know what can be done with their materials. Why not take them into your confidence, and ask them how you can save money? It might very well pay you handsomely.



### REVERE COPPER AND BRASS INCORPORATED

*Founded by Paul Revere in 1801*

**Executive Offices: 230 Park Avenue, New York 17, N. Y.**

SEE "MEET THE PRESS" ON NBC TELEVISION, SUNDAYS

---

This Group Insurance plan is

# tailor-made

to fit your needs



A Group Insurance plan which will suit your requirements  
is a simple matter when you call in The Travelers.

## 1 Exact Measurements

A Travelers Group specialist will survey your requirements and assemble the necessary data. He will show you various Group insurance patterns by industry and locality to help you in your selection.

With The Travelers, you are sure of prompt, personalized handling of claims. Salaried representatives, working out of the 239 strategically located offices, pay benefits under your plan with drafts drawn on local banks.

Your employees are taken care of promptly by The Travelers wherever


and whenever misfortune may overtake them.

If you'd like a Travelers Group specialist to study your Group insurance requirements and design a tailor-made plan for you, please fill out the coupon below, attach it to your letterhead—and mail.

## 2 Sound Planning

As your organization grows, revision of the original program may become desirable. Sound planning initially will facilitate future changes.

YOU WILL BE  
WELL SERVED BY



**The  
Travelers**

HARTFORD 15, CONNECTICUT

SPECIALIZING IN EMPLOYEE BENEFIT PLANS FOR  
OVER FORTY YEARS

I'd like a Travelers Group specialist to make a study of my Group insurance requirements.

NAME.....

STREET.....

CITY.....

STATE.....

Approximate number of employees.....

GW-9-13



## What a one-mile canal will do . . .

... When it's between the Tennessee and Cumberland Rivers

**1.** When the Lower Cumberland Dam is built...

**2.** It will form a reservoir and flood a large area making a...

**3.** One-mile canal connecting with the Kentucky Lake, a key project to:



- Speed transportation
- Aid flood control
- Develop more hydro power

© BUSINESS WEEK

## A Little Water Helps

To the uninformed observer it would appear from the map above that Kentucky engineers will be digging a mile-long canal from the Kentucky Lake into nowhere. The other end of the canal is more than a mile from water (the Cumberland River).

Actually, this is what is happening: The engineers, killing three birds with one stone, are going to build a dam across the Cumberland at Point 1. This will flood a lowlands area, and the water will reach to the canal. As the map shows, this will tie together the Tennessee River and the Cumberland, both of which flow in the same direction. The whole idea of the project is to capitalize on the nearness of the two rivers in a double-barreled approach to speedier navigation, flood control, and maximum use of hydro power.

• **To Be Signed**—Sometime within the next week, the President is expected to sign a bill authorizing both the canal and Cumberland Dam. Congress, as yet, hasn't put up the money, but it's expected the entire project will run to about \$161.4-million. Meanwhile, U.S. Army Engineers, working with the Kentucky planners, are moving ahead with maps and plans.

There's no doubt that the money

spent on the project will provide Kentucky with a tremendous power and shipping boost. The canal will enable the lower Cumberland hydro plant to develop an annual 120-million kwh. of electricity from water now being wasted over the Kentucky Dam. On top of this, the plant will be able to make use of the extra flow from the canal and the Cumberland Dam, which will bring it up to a grand total of 600-million kwh. a year.

• **Shorter Trips**—It's hard to measure the shot in the arm the canal will give to traffic on the two rivers. For all practical purposes, the project will eliminate the traditionally tedious trip around the mouth of the Tennessee, up the Ohio and back again up the Cumberland. And the increased water depth on one side of the Cumberland Dam will eliminate two locking stages.

From their standpoint, civil defense officials are praising the project because it takes some of the pressure off the locks on the Tennessee. If one set of locks were blown up, boats could be rerouted through the canal to use the other set. Besides this there's the flood-control angle; the canal will allow greater flexibility by shunting water back and forth from one reservoir to another.

## plant-location news



## How to get facts on raw materials

Just what do you need to know about raw materials before you pick a new plant site? Where to get aluminum castings in a hurry? How much it will cost to deliver 200 tons of Connellsville coal daily to your doorstep? Are synthetic yarn suppliers near at hand? Where can you find large and available quantities of high calcium limestone? Can you expect a continuing local supply of veneer logs? Storage and terminal facilities for handling bulk items? A chemical analysis? A cost schedule?

Whatever you need to know about a material—whether it's of local origin or comes from New Zealand, whether it's still in the earth or a semi-processed state—New York State's Industrial Location Service will give you the answers fast. And there's no cost or obligation.

I don't think there's any industry we can't serve. No matter what your special problems, we'll tell you where to locate needed materials and supplies. Because most of our clients are sticklers for perfection, we are, too. We'll describe the quality and quantity of raw materials, and give the total cost for delivery to any destination you say.

### The full story in two weeks

Recently a manufacturer of glass bodies for electronic tubes wrote us for information on the materials vital to his operation—glass sand and natural gas. Our ILS staff set to work as they always do (like bloodhounds on the trail!). They studied geological maps, analyzed samples, tabulated supply data, sent out information requests to district ILS offices, and consulted experts in the field. Within two weeks the manufacturer had a complete, concise report on his desk covering several desirable industrial locations.

### Quick and easy to read

He didn't have to wade through complicated charts, graphs, and heavy-going paragraphs. The report was current, concise, and it was complete.

He didn't have to follow up footnoted references, or check so-and-so's special report on the sands of Upper Hollow. With the data furnished in our report, he could pick the best possible plant location with unerring accuracy.

### Other free plant-site services

Raw materials won't be your only concern when you're looking for a new plant location. But no matter what factors are involved, ILS can be of help. Free reports are available on transportation, markets, water, labor, buildings and sites, and local laws and regulations—to mention just a few.

Our booklet called "Industrial Location Services" shows how you can put this valuable plant-location data to work. To get your copy, just write me at the New York State Department of Commerce, Room 700, 112 State Street, Albany 7, N. Y.

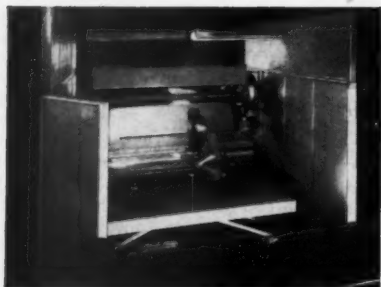
*Arnold B. Liberman*

Director, Industrial Location Service



## SOUND TALK

BY  
Carl W. Lemmerman



the prize in this  
package is "QUIET"...

If your plant's like most, it's plenty noisy. And noise means headaches for management as well as men on the line. Lowered production, increased absenteeism, poor morale... these by-products of industrial din affect your profits as well as your personnel.

### LEND AN EAR

But noise isn't necessary. We've developed practical methods and products to lick it. The ISC machinery enclosures above, for example, are highly effective in reducing and isolating noise of heavy metal working machinery such as power shears, stamping machines, punch presses, etc.

### WHAT'S YOUR NOISE PROBLEM?

The control of noise... like the control of any basic production factor in your plant... requires and deserves the attention of experts. ISC "Silence Service" has been quieting industrial noise since 1936. We're proud to say there's no noise too big, no job too small to tackle. Why not write today, outlining your problem, to me.

Don't forget to request our  
booklet "Sound Facts"

*Carl W. Lemmerman*  
President  
INDUSTRIAL SOUND CONTROL, Inc.  
45 Granby St., Hartford 12, Conn.

# Uranium and Oil Can Mix Now

At least they can in prospecting. A new federal law opens vast acreage of oil and coal land to lawful mining claims—mostly for uranium and related ores.

Uranium and oil-gas prospectors are the chief beneficiaries of the new "multiple use" minerals development act that Pres. Eisenhower signed on Aug. 13.

In the first three weeks under the law, thousands of new mining claims were filed in western states, mostly for uranium.

Until this law was passed, the government had two different policies for minerals on the public lands. The Mining Law of 1872 covered such minerals as lead, zinc, copper, gold, and iron; the Minerals Leasing Act of 1920 covered coal, oil, gas, oil shale, potash, phosphate, sodium, etc.

There wasn't much conflict, however, until uranium came along. Metallic ores rarely occurred in oil-gas country, or oil in mining country. Uranium is different. One of the first places where prospectors look for it is in oil-gas geological formations. Thousands of uranium claims have been filed—illegally—on public land already leased to oil, gas, and coal interests. In some cases, uranium was even dug out and shipped to the mills.

• **Making It Legal**—The new law ends most of the confusion about who can prospect and develop the public domain. Now you can:

• Prospect for uranium or other minerals on land that the government has already leased to oil, gas, coal, or other interests under the act of 1920.

• Find out if the land where you plan to drill for oil is covered by an old mining claim that still applies.

• Drill for oil on public land that's covered also by mining claims that are filed under the new law. A uranium company and an oil company, for example, can now prospect the same tract. They couldn't do this in the past.

• **Where It Applies**—The new law is effective only on public lands, but that includes all the "prospecting country" of the West. It opens up 60-million acres for uranium and other mineral exploration.

A lot of this is on the Colorado Plateau, where an estimated 90% of the land is in the public domain and a feverish hunt for oil-gas and uranium has led to frequent clashes. In Utah, nearly 70% of the total land area is in the public domain; and it's still higher in Nevada.

• **Leases and Claims**—There are two

ways you can go after rights to develop this public land:

**Leases** from the government if you are looking for oil, gas, oil shale, coal, sodium, potash, phosphate, or sulfur.

**Mining claims** if you are seeking almost any other mineral.

There's a big difference between the two forms of rights. A claim gives you virtual ownership of surface and mineral rights as long as you do \$100 worth of work on the property each year and can show you are after one of the minerals on the list. A lease never gives you title to the land—only the rights to a specific mineral.

For a lease, you pay the government a rent of 50¢ an acre the first year, less after that. You also pay the government a 12½% royalty on any oil or gas production, a 10¢-15¢ per ton royalty on any coal that's mined. For a mining claim you pay the government neither rent nor royalty.

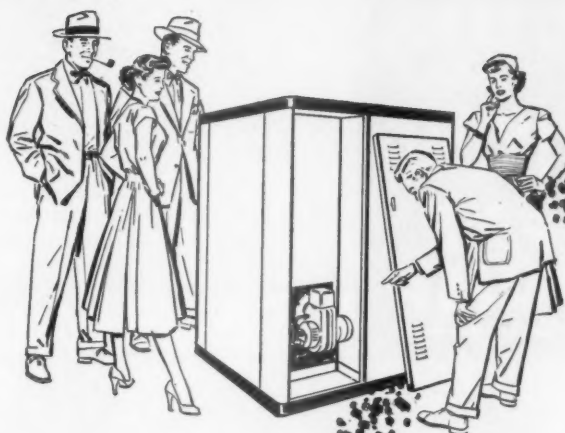
A mining claim is for approximately 20 acres. An individual can have as many claims as he wants, but the requirement of \$100 worth of work per year on each claim pretty much limits his ability to tie up acreage. On the other hand, an oil or gas lease can cover 2,560 acres, and a company or individual can hold up to 46,080 acres in any one state. Thus, oil companies have—under the old laws—taken 60-million acres out of the realm of uranium prospecting.

• **From Now On**—The mining claim and the leasing procedures remain unchanged by the new law. The difference is in what can happen after these formalities.

To file a mining claim, you first stake the location with markers at the four corners. Usually, these markers are 3-ft. piles of stones, with a description—scribbled in pencil and tucked into a tobacco can—buried in one of them. A copy of the description is filed later with the county recorder, who gets a \$1 fee for the filing.

To obtain a lease for oil, gas, coal, or the other specified commodities, you apply to the Bureau of Land Management (Interior Dept.). If you haven't produced after five years, it's up to BLM whether or not to renew your lease; if you have succeeded, the lease is yours indefinitely.

From now on, if your uranium company and John Smith's oil company get interested in the same tract of public



## it keeps the home fires burning!

Oil heat — automatic, dependable, economical — is a symbol of comfortable living in homes everywhere.

Many of America's best known oil burner manufacturers depend upon Emerson-Electric motors to keep their units operating efficiently.

Emerson-Electric builds motors for specialized applications such as oil burners, and for all types of equipment where dependability and long life are of first importance. It has done so for 64 years, and offers standard motors in ratings from 1/20 to 5 h.p., and hermetic motors 1/8 to 20 h.p. Your inquiry is invited.

**THE EMERSON ELECTRIC MFG. CO.**

St. Louis 21, Mo.



### Write for these Emerson-Electric Motor Data Bulletins



Manufacturers requiring motors 1/20 to 5 h.p. can profitably use these reference guides. Specifications, construction and performance data are included for these motors:

- |   |  |
|---|--|
| <input type="checkbox"/> M437-A Capacitor-Start | <input type="checkbox"/> M437-E Oil-Burner |
| <input type="checkbox"/> M437-B Split-Phase     | <input type="checkbox"/> M437-F Jet Pump   |
| <input type="checkbox"/> M437-C Integral        | <input type="checkbox"/> M437-G Blower     |
| <input type="checkbox"/> M437-D Fan-Duty        |  |

**EMERSON ELECTRIC**  
MOTORS • FANS      EMERSON ELECTRIC      APPLIANCES



## BETTER LARD FOR LESS



## with a VIKING FAT PUMP

**PROBLEM:** Handling 35,000 to 42,000 pounds of raw pork fat daily was a big problem at the Coast Packing Company, Los Angeles, California. It required the labor of two men, three hours per day of elevator time and use of many fat moving trucks.

**ANSWER:** After studying cost of fat movement, Anton Rieder, president, had a Viking model Q281 pump installed. Now the raw fat is pumped through a 3-inch pipe line to the third floor rendering tanks. Besides saving time and money, pumping has helped Coast Packing improve the quality of its lard.



If your plant has a semi-solid or liquid moving problem, call on Viking engineers, or write for bulletin Series 2501.

**VIKING PUMP COMPANY • CEDAR FALLS IOWA**

**THE ORIGINAL "GEAR-WITHIN-A-GEAR" ROTARY PUMP**

## "OUR GERLINGER EQUIPMENT

is responsible for  
much of our steady  
business growth"

### CROWN CITY LUMBER & MILL CO. PASADENA, CALIF.

CASE HISTORY NO. 46  
FROM OUR FILES

This 46-year-old firm is one of the leading California lumber and mill yards. All material transportation in Crown City's 5-acre plant is handled by 2 Gerlinger Straddle Carriers and a Gerlinger Lift Truck. The Carriers haul lumber from unloading dock and storage plant to resaw and moulding materials, unloads and loads gondola cars and trucks. Mr. L. K. Leishman, president, says: "We feel that mechanizing our operations with Gerlinger equipment is one of the big reasons for our expanding business."



**GERLINGER CARRIER CO.  
DALLAS, OREGON**

Retail lumber yards are discovering new profits through faster material handling with Gerlinger equipment. The complete Gerlinger line is described in our new catalogs. Send today for your free copy.

**GERLINGER**  
CARRIER CO.

G-230

land, you can file a mining claim and Smith can get a lease from BLM. If you start your mine first, Smith can drill on the same land, but he has to avoid bothering your operations. Similarly, if he starts drilling first, you can't interfere with his work, though you can explore and develop anywhere else on the tract.

Uranium and other mining claims can now be filed on land that's already under lease by oil, gas, coal, and similar interests. However, the oil, gas, and coal companies can't go onto mining claims filed prior to the new law. Mining claims that are filed under the new law will be open to leasing, however.

• **Uranium Claims**—Not all uranium claims antedating the new law are invalid. Stopgap legislation in 1953 validated mining claims that were filed on leased land after July 31, 1939, and before Jan. 1, 1953—but not if these claims were based solely on uranium discoveries.

Claims based on uranium alone were a special case. That's because the Atomic Energy Act of 1946 reserved all fissionable materials for ownership by the U.S. government. Interior Dept. ruled that this prohibited the granting of a title to any mining claim based on finds of uranium. The new law legalizes such grants.

For uranium, the law thus has special benefits: opening the way for uranium-only claims and allowing uranium, along with other metals, to be sought on leased lands. It also validates mining claims on leased lands that were located between Jan. 1, 1953, and Feb. 10, 1954 (the date the bill was introduced). Claimants must file amended applications on or before Dec. 11, 1954.

• **New Uranium Rush**—In the past month, hundreds of prospectors dashed out to put up claim markers on likely-looking spots they had picked out in the previously dubious territory of oil-lease lands. Claimants lined up at county recorders' offices throughout the uranium states of Colorado, Utah, New Mexico, Arizona, Wyoming, and Montana.

On Monday, Aug. 16, Mrs. Arvilla Warren, recorder for San Juan County, Utah (population less than 6,000, area bigger than Massachusetts), found a long line waiting when her office opened.

That day nearly 2,000 mining claims were filed; by Sept. 1, Mrs. Warren had recorded 8,000 new claims. These covered claim holders from every state in the Union and some from Canada and Mexico.

Mrs. Warren used to do the recorder's work alone. Now she has to have a force of 10 assistants, and there's no sign yet that the rush is tapering off.





## **CORRUGATED boxes that double as toys help sell hams against strong competition**

When several meat packers turn out quality hams, the job of selling one brand against the others becomes a real competitive challenge. But an amazingly simple answer that has brought a 43% sales boost to one packer is this arresting new box made of corrugated board.

It's a box that doubles as a toy log cabin (as any child will hasten to point out to a hesitant parent). But it's also more. It's a brand label easy to merchandise and fit into displays. It's a conversation piece that aids word of mouth advertising. It's a sturdy package that protects the ham during ship-

ment and refrigerated storage. And because it's corrugated, it's light in weight and low in cost.

Dual purpose corrugated boxes can be designed either to cash in on today's powerful "child influence," or for practical extra uses that adults can appreciate. Either way, the box lingers in the household as a reminder of the product brand name—sometimes for months. If you have a competitive problem with your product, maybe a corru-

gated container is the answer. Have a talk with your nearby boxmaker and see. He's listed in the yellow section of your telephone book.

Corrugated containers can be made so inexpensively today because of the incredible efficiency of Langston machines—capable of turning out corrugated board at speeds up to 600 feet per minute, and printing box blanks in split seconds. *Samuel M. Langston Co., Camden 4, N.J.*

# **LANGSTON**

**Corrugated Container Machinery**

whether you manage



a factory  
an office

an airport  
a construction job



or a  
super market



it will pay you  
to investigate

## WHEELER SOUND POWERED Electric TELEPHONES

- NO BATTERIES. No outside power.
- LOW in FIRST and LAST COST.
- CLEAR SPEECH. CLEAR SIGNAL.
- ALWAYS READY IN EMERGENCY.
- No electrical hazard.
- UP TO 12 stations intercom.
- SIMPLE standard WIRING.
- Corrosion-resistant construction.

Write for full information and prices.

ASK ABOUT NEW EXECUTIVE-TYPE CRADLE PHONE.

Built and Guaranteed by

THE WHEELER INSULATED WIRE CO., INC.  
Division of The Sperry Corporation

1125 East Aurora Street, Waterbury 20, Conn.



## FREE Ask for a sample

### Put your message on a CARROLL Spring-Stop Tape Measure

It's Useful—Lasting—Low Priced

This sturdy, 48" tape measure, with automatic rewind, will be used over and over again in office, shop, home and school — and every time it will repeat your message. A good advertising specialty! Available with enameled steel case (in assorted colors) or laminated plastic on steel case.

Tape is plastic coated non-coiling fabric with non-fraying edges. Ample room on case for your sales message.

TRY ONE FREE! Ask your Advertising Jobber or send this coupon.

— J. B. CARROLL COMPANY —  
325 North Albany Avenue  
Chicago 12, Illinois

Gentlemen: Send me a sample, prices, etc. of the Carroll Spring-Stop Tape Measure soon as possible.

Name \_\_\_\_\_  
Title \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

# Not Killing the Iron Goose

Minnesota is studying revision of taxes that would ease the burden on the iron mining companies. Much has changed since 50 years ago.

Fifty years ago, a high official of the then-young U.S. Steel Corp. quoted figures in defense of the capitalization of the company. He told a Congressional investigating committee that the company valued its iron ore reserves in Minnesota alone at \$700-million.

This appraisal succeeded in impressing the congressmen, but it also spilled the beans in a way U.S. Steel never intended. At that time, all the iron mining property in Minnesota and Michigan put together was assessed at \$54-million. U.S. Steel was reputed to own about half this property.

Comparing assessed valuation of less than \$30-million with an announced book valuation of \$700-million, Minnesota taxpayers blew their tops. The legislature, already under pressure to soak the mining companies, began passing laws that boosted tax rates, imposed new taxes, and reassessed mining property. From then till now, there has been continual war over taxes.

• **Peace In Our Time**—However, a 16-man interim commission on taxation of iron ore is scheduled to report to the Minnesota legislature next winter. Its recommendations will aim at a long-range tax program finely balanced between soaking the mining companies and discouraging them entirely.

Minnesota has picked a good time to put its tax structure in order. On the one hand, it has iron mining companies ready to plunge into huge investments for extracting and treating the state's lower-grade taconite ores (page 78), but hesitating to commit themselves until the tax situation is stabilized. On the other hand, the state realizes that it is no longer in the supreme position of even 10 years ago as an iron ore source.

As far back as 1940, officials in state taxing agencies were aware of Minnesota's approaching vulnerability and were suggesting a go-easy policy. More recently, the state has decided it must encourage development of the vast taconite resources and must keep ore prices competitive with foreign ores and the beneficiated jasper—another low-grade ore—from Michigan (BW—Jun. 19'54, p.94).

• **Costs Up**—Pyramiding of state, municipal, and school taxes has added a heavy burden to production costs of Minnesota ore. In 1952, average production cost was \$2.70 a ton, including royalty, development, mining, beneficiating, and taxes. Of this amount, 58.1¢ was taxes—21.5% of the total.

That's a long jump from the original tax levied on iron ore—1¢ a ton. However, the 1¢ rate didn't last long. It began in the early 1880s, after a group interested in developing a mine appealed to the legislature for assurance against future unreasonable taxation. In answer, the legislature fixed the penny rate (but 50¢ a ton for copper). An ad valorem tax on real property was enacted in 1897, and iron mines came under that, too.

The ad valorem tax proved feeble at separating the mining companies from what the severest critics called ill-gotten gains—it was too easy to influence the assessors. At the time of the U.S. Steel investigation in 1905, the companies were still beating off attempts to take more tax.

• **Change of Heart**—Then came the deluge of new taxes and heavier rates. Of each \$1 of real estate taxes collected in 1906, mineral property contributed 8.5¢; of each \$1 collected in 1912, mining's share was 22.5¢.

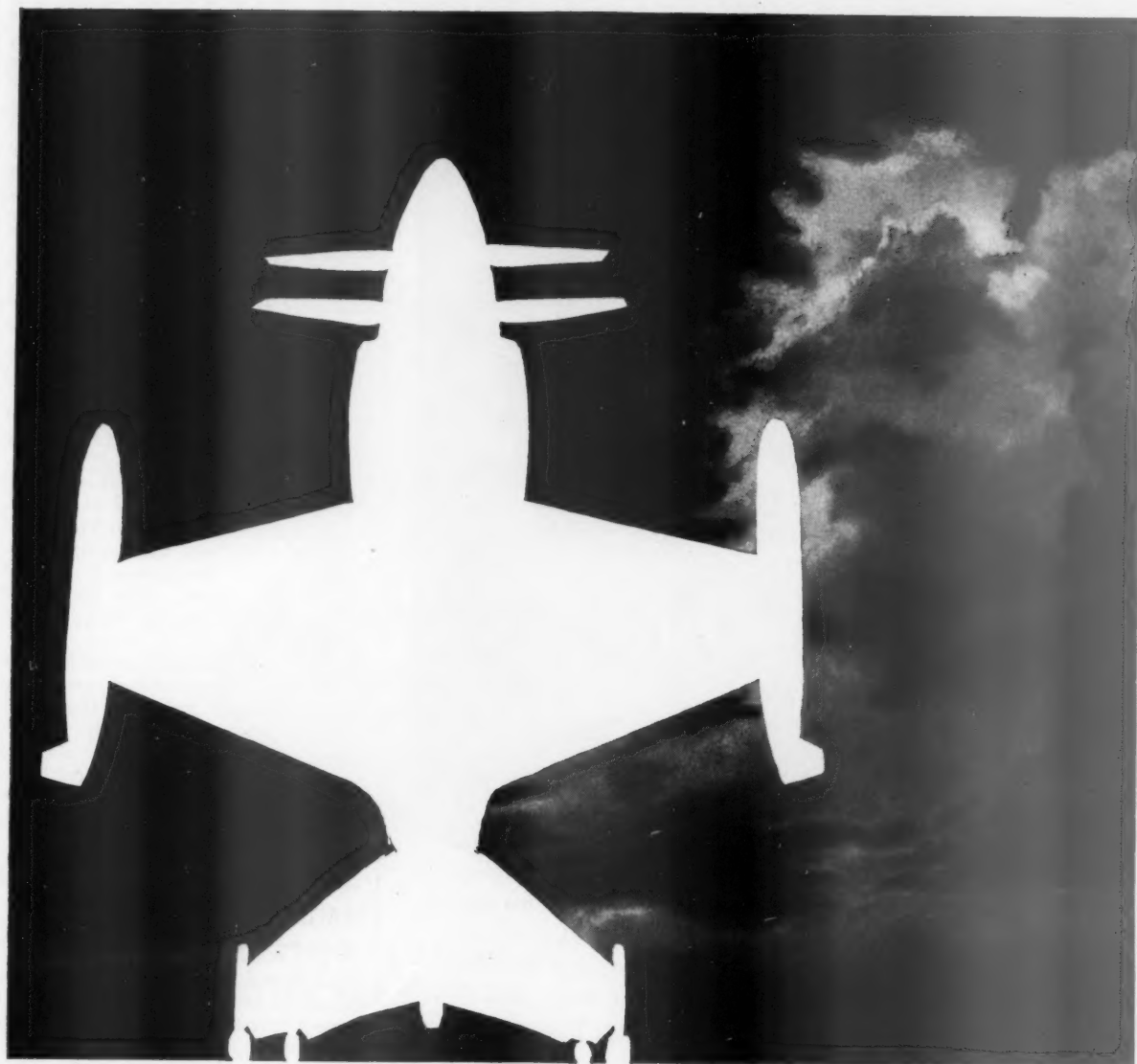
In 1913, the state reassessed all iron mining property according to a nightmarishly complex formula. Ten years later, these properties were reclassified and hit even harder. The official ratio of assessed to true valuation was set at 50% for mining property, compared with 25% for household goods, 33% for livestock, and 40% for land in general.

In 1914, state, county, and local ad valorem taxes on the mining industry totaled \$6.7-million. In 1920, the total was up to \$20.8-million. After that, it held consistently above \$18-million.

• **Local Taxes**—The increase was largely due to the mining towns' discovery that they had a gold mine of taxes at their front door. Hibbing started it in 1913 by electing local candidates who were anti-mine. The village tax jumped from about \$200,000 a year on the mines to \$753,800 in 1914 and more than \$2.3-million five years later.

Other mining towns heard of the bonanza and followed Hibbing's formula. While the state's share of ad valorem taxes on mines rose only from \$1.3-million in 1914 to \$2.1-million in 1925, municipalities' share soared from \$4.3-million to \$13.4-million.

• **Retaliation**—This made the cities and villages that didn't have mines very unhappy. In 1921, they forced the legislature to impose new taxes for statewide distribution. The mines were made to pay an occupation tax,



## Here is AVIATION INSURANCE as modern as tomorrow's planes!

**BROADEST COVERAGE FOR PRIVATE AND COMPANY-OWNED AIRCRAFT**

From the North America Companies' own Aviation Department comes protection as *modern* as the air age we live in.

This up-to-the-minute insurance provides the broadest coverage available for private and company-owned planes. Policies can be tailor-made to include any and all coverages. And with your insurance comes fast, professional service, based on the experience and know-how of specialists in our own Aviation Department.

See for yourself how well this insurance can be

fitted to your specialized needs. Call an Agent of one of the North America Companies—or your own broker—for all the facts about this *modern* aviation insurance service. There's no obligation, of course.



### **NORTH AMERICA COMPANIES**

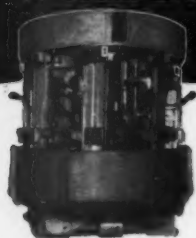
Insurance Company of North America  
Indemnity Insurance Company of North America  
Philadelphia Fire and Marine Insurance Company

PROTECT WHAT YOU HAVE®

Philadelphia 1, Pa.



## Look to the Future When Buying Machines for Today



LEES-BRADNER  
MODEL 7-A ROTARY HOBBER

*It's* important to look ahead when buying machine tools. To ask *more* than "What can it do today?" Tomorrow comes fast...and it's important that the tools you buy now have the *reserve capacity* for your future needs.

If you're ready to replace worn out, inefficient hobbers that increase your labor costs and take up valuable floor space, be sure to get the facts on the new Lees-Bradner hobbing machines.

When you invest in a Lees-Bradner you're buying not only for today but for tomorrow's needs, too.

Your Lees-Bradner representative will be glad to arrange a demonstration. Or write to us direct.



levied on the value of all ores mined—this yielded \$26.2-million in 1951, more than half again as much as the total ad valorem tax on mining property. Landowners also had to pay an 11% (since 1949 it has been 12%) tax on the value of royalties—and the owners soon insisted on passing this tax along to the mining companies in their leases. This tax yielded \$2.7-million in 1951.

The non-mining municipalities also got the legislature to fix a ceiling on tax levies by all municipal bodies: \$100 per capita for general purposes in cities and villages, \$60 for local school purposes. This didn't stop the hog-wild spending of the mining towns right away—they regarded the ceilings as an invitation to push their spending to the maximum.

As recently as 1921, 19 non-mining municipalities were levying \$13.97 per capita for general uses and \$16.75 for schools, while four mining towns averaged \$94.27 for general funds and \$52.48 for schools. Now they're all well within the current limits of \$50 and \$40.

• **The Hope**—Mining companies have small hope that the interim commission will recommend repeal of the state's special taxes on iron ore—the state is accustomed to the revenue, and the cow is easy to milk. But they do dream of a stable, long-range setup, perhaps patterned after the Michigan law, which they regard as equitable.

### REGIONS BRIEFS

New York State Thruway officials have settled a hot issue: Volunteer firemen do not have to pay tolls now when they are enroute to a blaze via the Thruway. The problem arose when police called for firemen to put out an auto fire near the highway. Firefighters were given toll tickets when they entered but refused to pay on their way home. Now they get special "fire" tickets.

Columbus, Ohio, will get a new 19-story, aluminum and glass office building—the first major building in the downtown area in 25 years. It will be named the Cox Tower Building after William Deshler Cox, majority owner of the site. In pioneer days the Deshler family home stood on the same site.

Mississippi bargemen are enjoying a continuing boom, toting more freight than in the golden days of the stern-wheelers. Barge shipments went up 20% in 1953 over the 1952 total and this year will be even higher, according to the latest estimates. Canals and channel improvements are cited as major factors in the upswing.



# THE MARCHANT *FIGUREMATIC*

World's  
Greatest Value  
in Calculator  
Performance



## A "ONE-TWO" OPERATION IN AUTOMATIC MULTIPLICATION AND DIVISION

MARCHANT'S *new* FIGUREMATIC is the only calculator in its price range that brings you this automatic "one-two" operation in both multiplication and division, with automatic carriage control as well. After brief instruction anyone in your office can operate a FIGUREMATIC efficiently. Call the local MARCHANT MAN for a time-test on your own work. You'll discover that for fast, simple, accurate operation...

Any way you figure—IT'S MARCHANT!

### TO MULTIPLY

Just

1. Enter the multiplicand
  2. Enter the multiplier
- Read your answer in the dials

$$\begin{array}{r} 4 \\ \times 2 \\ \hline 8 \end{array}$$

### TO DIVIDE

Just

1. Enter the dividend
  2. Enter the divisor
- Read your answer in the dials

$$\begin{array}{r} 3 \\ 2 \overline{) 6} \end{array}$$

MARCHANT  
AMERICA'S FIRST  
*Calculators*



Mail this Coupon

Find out how a MARCHANT calculator will help cut your figurework costs and lighten your figuring burden. Mail this coupon with your business letterhead for free...

- Index to Modern Figuring by Marchant Methods . . . ☐  
Descriptive literature on Marchant Calculators . . . ☐

MARCHANT CALCULATORS, INC., OAKLAND 8, CALIFORNIA

B-9



## The coal car that's

**How to add fuel to the fires** of their furnaces, at lowest cost, was a problem to engineers of the power plant for a big, new production unit of an important manufacturer. Large deposits of fuel lay several miles away, but a fast, reliable, economical form of transportation was needed. The newest "rubber railroad" designed with the help of the G.T.M.—Goodyear Technical Man—was the answer.

**Like a giant chain** to which links can be added, the system — now consisting of eight flights of interconnected conveyor belts, 36- and 42-inches wide and totaling over 30,000 feet in length—can be extended

with new flights to maintain the flow of fuel from mining to generating equipment as the workings progress. Since the installation is permanent, the belts are covered with special, wear-resistant rubber and mildew inhibited throughout to assure long life.

**Many questions** were asked before the plans were approved. The power plant engineers demanded facts and figures on cost, capacity, reliability, service life and maintenance. With the help of records made by previous "rubber railroads" at Shasta, Bull Shoals, Grand Coulee and other heavy haulage jobs, the G.T.M. conclusively proved the overland conveyor



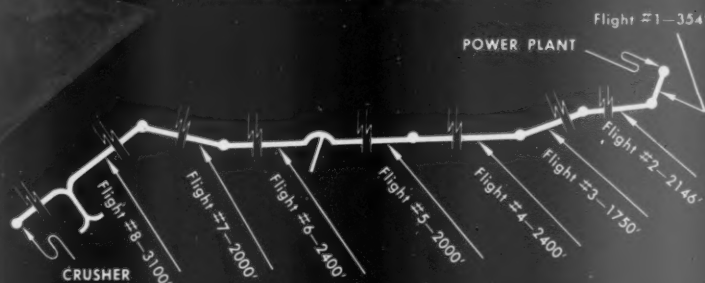
## GOODYEAR INDUSTRIAL PRODUCTS



### -Specified

CROSS-COUNTRY COAL CONVEYOR

for a prominent southwest light and power company



## at three miles long

el from  
ngs pro-  
he belts  
ber and  
fe.

was the most practical and economical form of transportation for the job.

**Your questions** on conveying bulk materials of any type over any distance, from a few feet to many miles, are best answered by the G.T.M. He also has the answers on how to get the most out of rubber in every

imaginable industrial use. Contact him through your Goodyear Distributor or by writing: Goodyear, Industrial Products Division, Akron 16, Ohio.

**YOUR GOODYEAR DISTRIBUTOR** can quickly supply you with Hose, Flat Belts, V-Belts, Packing or Rolls. Look for him in the yellow pages of your Telephone Directory under "Rubber Products" or "Rubber Goods."

# GOODYEAR

THE GREATEST NAME IN RUBBER

# Star of the office

Can a thing as commonplace as a business form be an office hero? Well, one like this helped a customer of ours increase efficiency and save about \$25,000 a year on form costs. The company and the Moore man who helped had the advantage of Moore's abundant facilities, and its wide range of forms. Need a star like this on your team?



**MOORE**  
BUSINESS FORMS  
Inc

Look up the Moore man in the Classified  
or write us at Niagara Falls, N. Y., Denton, Tex.  
or Emeryville, Calif. Over 300 offices and  
factories across U. S. and Canada





## Health Examinations: How they helped one company's executives

U.S. Rubber's health program checked executives for ...	In 1949 these cases showed up ...	In 1953 it was down to this ...
Weight more than 10% over or under	19.3%	7.7%
Uncorrected Vision	15.2%	8.4%
Elevated Blood Pressure	16.5%	9.2%
Abnormal Prostatic Conditions	4.4%	2.1%
Abnormal Blood Count	5.1%	4.1%
Abnormal Urinalysis	5.3%	2.1%
Abnormalities by X-ray (lung, heart)	4.0%	4.0%
Abnormal Electrocardiograms	18.5%	8.4%
Average age and number of executives	47 years 454 executives	47.6 years 703 executives

Data: Life Extension Examiners.

©BUSINESS WEEK

## Longer Lives for Executives

Figures in the table above show why more and more companies are inaugurating full-scale health examination programs for their executives. They come from records, released this week, of U.S. Rubber Co.'s six-year experience with a companywide plan that ranks with the most intensive in industry.

U.S. Rubber found two kinds of value in the health program:

- At the beginning, it routs out the major ailments that might impair an executive's usefulness or result in unexpected loss of his services. These then have a chance of being corrected.

- As the examinations continue year after year, the incidence of such ailments is sharply reduced.

- **Life Extension**—Prior to 1949, U.S. Rubber had facilities only in its larger plants to examine executives. Sales people, central office management, and executives in the smaller plants got cursory examinations, or none at all. To remedy these gaps, U.S. Rubber put its health checkups for top people on a companywide basis.

The company began using the facilities of Life Extension Examiners, a 40-year-old nonprofit organization. Cost is running now about \$25,000 a year—at an average of about \$35 per executive examined—and the company is convinced the money is well spent.

As the table shows, abnormal weight conditions among the hundreds of ex-

cutives who were checked dropped from 19.8% in 1949 to only 7.4% in 1953. Cases of high blood pressure have been cut in half, and abnormal electrocardiograms by more than half.

- **General Experience**—These results apply to only one company, but Life Extension Examiners says they are typical of the companies for which it has figures.

The interest of companies in the health of their executives was turned into action in the late war years and the postwar adjustment. War and conversion and remobilization problems put an extra strain on management, and industrial expansion spread skilled executives pretty thin. Corporations decided it was time to conserve their people, keep management alive.

In 1946, Life Extension Examiners had only 27 companies on its list for executive health programs. With the great increase in the past few years, the clinic now has nearly 300 companies, including such giants as U.S. Steel and General Motors.

- **Facilities**—Many local clinics give examinations—Mayo, Leahy, Cleveland Clinic—but Life Extension Examiners claims to be the only nationwide clinic, with branches in many parts of the country. Its volume is huge. There were more than 35,000 examinations last year.

Like other clinics, Life Examiners picked up company business because such diagnostic centers seem best suited to the need. Hospitals can do the job, of course, but executives are generally reluctant to enter hospitals for any purpose. Company medical departments are often inadequately equipped for the kind of thorough examination that's desired. Besides, executives feel more cooperative toward outsiders than toward company medics.

Examinations are usually comprehensive, and costs can run as high as \$300 per man for an all-out checkup. Most companies prescribe the degree of examination that U.S. Rubber uses, averaging around \$35 per man.

- **Confidential**—Company plans vary somewhat, but most offer an annual physical examination (some make it oftener) on a voluntary basis. The company foots the bill, but the findings go only to the patient and, perhaps, his family doctor.

The highly confidential nature of these examinations is vitally important to the success of the plan. In the early years of company-ordered checkups, executives tended to bristle at company "meddling" in personal affairs. Matters for office and for home, say

## Cleveland's the Place...

### FOR A NEW ENTERPRISE

Here's a market surrounded by markets... with easy access to half the U. S. population... close to sources of raw materials and finished parts... low-cost power... excellent shipping facilities.



Central National Bank can serve, adequately, the banking needs of industry locating in this area. For reasons why, write:

## CENTRAL NATIONAL BANK

of Cleveland  
Cleveland 1, Ohio

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION

### WHAT ARE YOUR TOOL ROOM COSTS?



up to **60%** in Steel Costs  
with **MARSHALL CRAT**  
**LOW CARBON** Ground Flat Stock

- It is easy to machine
- Grinds to a good finish
- Takes a good case
- Has excellent weldability

And compared to Tool Steel gives up to 60% savings in steel cost. Now you can use Marshallcrat for jigs, fixtures, patterns, machine parts or other pieces that require nothing more than case hardening. Over 190 standard sizes in stock ready for shipment. It will pay you to investigate.

A BAR, STRIP & PLATE GRINDING SERVICE

Write for catalog

**MARSHALL STEEL CO.**  
P.O. BOX 106 W LA GRANGE, ILLINOIS

ARISTOCRAT OF LOW CARBON GROUND FLAT STOCK

most executives, shouldn't overlap.

Companies eased executives' minds on this score by seeing to it that no one knows what's wrong but the executive himself. When treatment is recommended by the examiner, however, findings are often sent to the family doctor. Company checkups are for diagnosis only; treatment is at the expense and volition of the executive himself.

• **Does It Pay?**—Statistics are still somewhat fuzzy on the dollars-and-cents value of executive health programs. As one company put it: "We're shooting blind on the premise that it's good business." However, figures like those of U.S. Rubber are beginning to appear, and companies are getting a good idea of what is being accomplished.

Dr. George M. Saunders of Socony-Vacuum Oil Co. recently estimated that 40% of management people have ailments they don't even suspect. If a checkup program does nothing more than uncover these cases in time for treatment, it is worth while, says Dr. Saunders.

Life Examiners has launched a project to put some meaning into the mass of statistics it has collected through the years: comparisons for various jobs, various industries, and so on. This study is intended to give clinics a better guide for future examinations.

Life insurance companies, too, are naturally interested. In 1951, the Policyholders Service Bureau of Metropolitan Life Insurance Co. published a pamphlet on what companies were doing (BW-Apr. 14 '51, p48). Now it is working on a project to bring these findings up to date.

## Group Insurance Shows Big Gains

Group insurance policies for employees cover just about everything today. That's one finding that shows up in figures just compiled by the National Industrial Conference Board from the Life Insurance Assn., of America for the postwar period, 1945-1953.

Since the end of the war, group insurance has expanded rapidly in two ways: (1) in the number of employees covered and (2) in the types of coverage supported by management.

Take group life, the biggest of the lot in numbers of employees affected. In 1945, the NIBC report shows there were 11.3-million employees covered by 30,002 contracts. Nine years later, at the end of 1953, there were 25.3-million covered by 74,450 contracts.

Many more life contracts now cover not only the insured himself but his dependents as well. So far, contracts of this type are still a small part of the total. But since 1949, the num-

ber has more than tripled—to 980.

Management has extended policies in other areas, too. In 1952, for example, the first figures became available on the new major-medical-expense policies—those that cover costs far in excess of Blue Cross. By the end of 1953, there were 650 such contracts blanketing 514,000 employees, an almost equal number covering their dependents.

Biggest increase shown by the study: dependents' coverage under normal group medical contracts. It started out in 1945 with 508 contracts covering only 97,876 dependents, now has reached 22,610 contracts covering 6.9-million.

## Line Executives...

... will get special help from a series of AMA seminars, aimed at those who supervise

The problems of first-line supervision will get special attention this fall from the American Management Assn.

AMA has announced a series of educational seminars for executives who supervise foremen. The program spells a departure for AMA, which usually confines its training work to higher-level administrators.

• **New Role**—One reason for the new program, according to AMA, is the growing number of requests from members to provide supervisory training. In addition, many companies have been turning more responsibility over to line executives. Assignments in such fields as labor relations, training, communication, personnel administration—responsibilities that formerly fell to staff specialists—are more and more coming under the charge of men immediately over production workers.

AMA's fall and winter seminars will be held in Chicago, Buffalo, and New York. The first, slated Sept. 16-17 in New York, will be on cost reduction. Other subjects to be covered in eight two-day seminars include the supervisors' role in personnel administration, labor relations, employee training, and communication. Sessions will be held in Buffalo Oct. 4-6 and in Chicago Jan. 10-12.

• **Target**—At the outset, AMA is aiming its training at men who supervise the supervisors, with the idea that higher-echelon executives will know what to expect of first-line supervisors. Later, production supervisors themselves will be called in for training.

Eventually, AMA expects to establish a full-scale department devoted to supervisory development services with the same status as its other activities.



# To you who would like to be right every time:

**It's no easy job in today's economy to make  
the right decision every time.**

Decisions must be made on the basis of sound data! Yet, the more vital the decision, the more essential it is to obtain that data swiftly. With Univac, the process is lightning fast. Univac gives you the facts you need at the moment you need them. It turns out the most complex projections—not in months or weeks—but in hours or even minutes.

And, equally important, is its remarkable flexibility. Because, however valuable Univac may be in decision-making, its primary advantage is its ability to reduce the time and cost of handling everyday record keeping, accounting, and data analysis tasks.

Univac gives you these routine reports with the same lightning speed, then, from the same source data, gives you policy-making statistics which were never before available. And, no matter how involved the process, Univac produces exactly the results you need in any desired format.

You can find out for yourself what you can expect of Univac, by sending a group of your key men to one of our management courses in commercial electronic data-processing. For information write us on your business letterhead.

***Remington Rand***

Electronic Computer Dept., Room 1905, 315 Fourth Ave., N. Y. 10.



**UNIVAC**

ELECTRONIC DATA-PROCESSING SYSTEM

**a profit-building business tool, an  
invaluable aid to long-range planning.**

to 980.  
policies  
for ex-  
available  
use poli-  
r in ex-  
of 1953,  
blanket-  
st equal  
endents.  
e study:  
normal  
started  
cts cov-  
now has  
ing 6.9-

S ...  
I help  
semi-  
who

ervision  
ill from  
ries of  
ecutives  
rogram  
which  
work to

he new  
is the  
a mem-  
ing. In  
e been  
to line  
a fields  
munica-  
sponsi-  
special-  
under  
y over

ars will  
d New  
6-17 in  
uction.  
eight  
super-  
ration,  
g, and  
e held  
go Jan.

aiming  
se the  
higher-  
hat to  
Later,  
es will

stablish  
super-  
h the

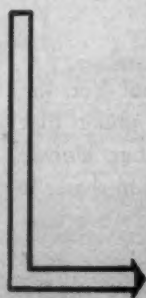
, 1954



# One Way to Beat Rising Factory Costs

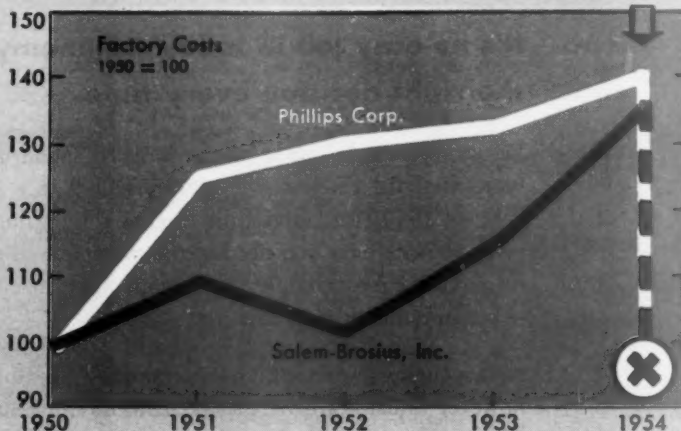
## 1. Problem

These two companies found the same problem ...



## 2. Solution

So they merged their production work under Salem-Brosius ...



## 3. Hope

... And figure to cut factory costs back to here

# Two Companies; One Producer

Last week, two metal-working companies in the Pittsburgh area launched a plan to solve the high costs and low volume that are so tough on small outfits today. It's a new switch in mergers.

The chart above spells out what the two companies think the plan will do for their manufacturing costs. If their budget estimates are correct, the costs will edge down below the 1950 level for both companies.

The deal involves Salem-Brosius, Inc., and the Phillips Corp. Each owns and occupies half of a common plant in Carnegie, Pa.

Companies trying to save operating costs sometimes merge their corporate identities. But in this case, all that was involved was the companies' production facilities. That way each company kept its identity, but gets the benefits of a merger.

• **Situation**—Both companies operated their facilities separately in the one-story building. Salem-Brosius designs and manufactures industrial furnaces and machinery for metal producers and fabricators. Phillips—in business for 90 years as Phillips Mine and Mill Supply Co.—produces materials handling equipment for mines and furnaces.

The two businesses don't compete,

but rather complement one another. Salem-Brosius' products come largely from metal-cutting machinery; Phillips' depend mainly on metal-forming processes—press-brakes and shears, drills and punches, cutting and welding torches.

Still, each company needs considerable work using processes in which the other specializes. That means subcontracting, and lots of it. But the new plan has ended that.

• **Mechanics**—Specifically, Salem-Brosius leased 75% of Phillips' plant space—for 15 years with an option to buy. Salem-Brosius also bought, on a conditional sales contract, all Phillips' tools and equipment.

In turn Phillips contracted to give Salem-Brosius first crack at all its production.

Each company maintains its corporate structure, product line, sales, administrative and executive forces. Salem-Brosius will have an expanded manufacturing force, Phillips practically none.

That way the two will keep their work at home, aided by the specialized production knowhow each can contribute to the pooled manufacturing arrangement.

As a result, both companies see:

- Savings on the overhead charges and profit formerly paid subcontractors.
- A 35% reduction in supervisory man-hours.
- Production, rather than job-shop, load factors for the machinery, an efficiency neither could reach before.
- Closer control of manufacturing standards, since most of the work will be done on their own premises.
- Some economies through joint purchasing.
- Total operating cost savings of at least 22% to 32% through improved machine-loading. Likewise, overhead cost saving will be at least 37.3% for Salem-Brosius, 30.4% for Phillips.

Take Salem-Brosius. It used to subcontract up to 90% of the sheet-metal forming required for the shells of its industrial furnaces. Now the work will be done at the Carnegie plant on the tools it has lease-purchased from Phillips Corp.

On machining, Phillips will pay prices per machine-hour only a little more than half those it had to pay subcontractors for equivalent work.

As for volume, Ward A. Wickwire, Jr., president of Salem-Brosius, thinks the pooled equipment will be kept busy at least 75% of the time, even at





## TUG NAVIGATES FOG WITH EASE BY USING RADAR

Tows Railroad-Car Floats, Jersey City to Brooklyn Under Worst Conditions

N. Y. HERALD TRIBUNE, OCT. 17, 1947

### THE STORY BEHIND THE STORY:

■ Perhaps you recall the time 7 years ago when fog closed New York's busy harbor with a vengeance. A harbor ferry with 52 passengers aboard "lost" for 7 hours . . . a mighty ocean liner delayed 13 hours in reaching her dock, a mile or two away. Forty ships awaiting entrance to New York harbor and not a propeller turning—except aboard Transfer 21, tug-boat of the New York, New Haven &

Hartford Railroad. Guided solely by Sperry Radar, Transfer 21 went about her business—moved 302 railroad cars over the three and three-quarter mile passage between Brooklyn and New Jersey on schedule.

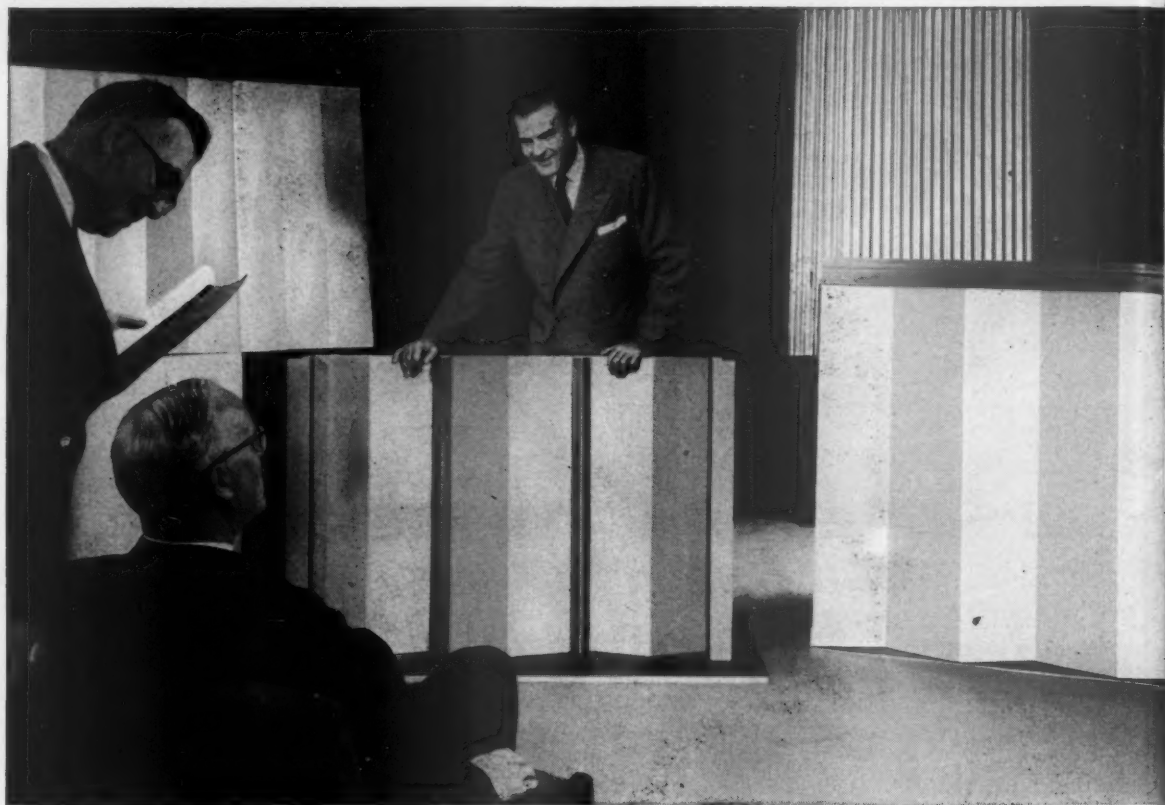
■ Dramatic as it is, such a story would hardly make the headlines today. During those 7 years, Sperry Radar has become as much a part of modern marine shipping as the Sperry Gyro-Compass, bringing radar to every type of vessel—from

the river boat pushing its block-long tow around the torturous turns of the Mississippi in total darkness, to the ocean liner holding its course on schedule through fog and storm.

■ Sperry's leadership in radar stems from the company's development of the Klystron tube, a unique source of radio energy which made microwave radar possible. In addition to serving ships, you'll find Sperry radars giving new precision to air navigation, both military and commercial . . . in early warning systems and anti-aircraft defenses . . . and in guided missiles for defense and offense.

**SPERRY** GYROSCOPE COMPANY

DIVISION OF THE SPERRY CORPORATION • GREAT NECK, N. Y.



## HERE'S HOW ARCHITECTS HELP BUSINESS LEADERS design the most efficient buildings of today

● First, the men, whose vision is expanding America's industry and commerce, approve their architect's recommendation for curtain walls of ENDURO Stainless. These embody the construction advantages of today's technology.

Then Republic Steel's research and development engineers, using the architect's sketches, work out the fabricating details of his design.

The exact shape of the stainless steel panel is presented in a sample for approval.

The lightweight, efficient, speedily erected

curtain wall is probably the most distinctive building feature of this century. And stainless has proved to be the most enduringly beautiful and corrosion-free metal for curtain walls. The most recent of today's beautifully designed commercial buildings, that will have spandrels of ENDURO, is the Westinghouse Research Laboratory at Pittsburgh.

Republic's well-equipped, fast set-up for working with architects and builders on the design of ENDURO Stainless wall panels is typical of

### REPUBLIC'S 3-STEP SERVICE TO STEEL USERS:

- 1** Making the finest steels possible, in the world's widest range;
- 2** Recommending to you the most exact specification to suit your needs (because we have this wide range);
- 3** Following up with metallurgical field service to insure your greatest benefit from the use of Republic steels.

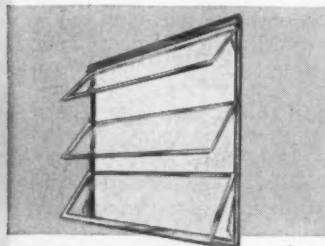
# REPUBLIC STEEL

GENERAL OFFICES • CLEVELAND 1, OHIO

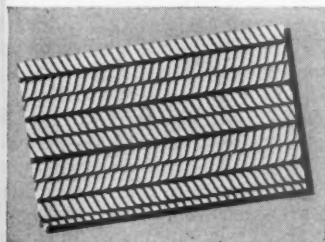
**The REPUBLIC name  
is now borne  
by thousands of steels  
and steel products.  
Do you know these?**



**DOORS** for interior use, of flame-resisting, non-warping steel, are one of the most flourishing items sold by Republic's Truscon Steel Division—a natural companion to Truscon's metal windows.



**WINDOWS** of steel are products of Republic's Truscon Division. Just about any kind of metal window you can name, Republic has. Truscon is the world's largest supplier of metal windows and doors.



**METAL LATH**, gutters, downspout, flashing, all kinds of fasteners such as nails, staples, and bolts are part of Republic Steel's tremendous part in the tremendous building industry—now enjoying the most tremendous boom in the history of this booming nation.



**WORLD'S WIDEST RANGE  
OF STANDARD STEELS AND  
STEEL PRODUCTS**

today's level of business, which is distinctly off from 1950-53.

• **Machine Costs**—Let 1950's total average cost of operating a machine equal 100. From that level, S-B's hourly operating cost rose sharply through the first eight months of 1954, to about 136. On the same basis, Phillips' went even higher, to 141.

Wickwire and John M. Phillips, Jr., president of Phillips, won't reveal dollar figures, but the costs charged under the pool arrangement by their best cost accounting estimates started off Sept. 1 at only 96% of the 1950 rate. That means operating savings of 22.5% for S-B and 32.5% for Phillips.

There's another angle. The production pool offsets the manufacturing-cost inflation since 1950, so both Wickwire and Phillips think their companies will be more competitive in today's scramble for orders. Increased orders, if any, would cut operating costs still further.

Less tangible benefits are possible to the team setup. For instance, though they don't compete, the companies have some common markets. So sales and service departments of each can help the other turn up prospects, meet delivery schedules, service equipment.

Then, too, the engineering departments can trade help.

Orders can be combined, too. Take steel-plate. They may avoid "extra" charges slapped on mill shipments below minimum tonnages. Some common components can be standardized also.

• **Capital Account**—In S-B's case, it will have boosted its productive capacity—while cutting its operating costs—with no immediate capital outlay.

Under the tool and equipment deal, it gets at depreciated book value tools that would cost about \$500,000 new today—and on a basis of nothing down, eight years to pay. Half the price will be paid in monthly installments over eight years. The rest will be paid on the basis of the hours the Phillips machines operate—whether on Phillips' work or for Salem-Brosius. Because of the conditional sales angle, there is a tax break for S-B, similar to the machine tool rental system Kearney & Trecker, Warner-Swasey, and others, have established (BW—May 6 '54, p100).

Naturally, such a two-headed operation had its problems to solve. S-B and Phillips had to agree on investment values in order to determine factory costs. Their cost accounting systems were standardized in advance, along with blueprints.

To avoid any haggling over who gets to use the equipment, each company has priority on a pre-determined number of machine-hours per month. If either company requires more machine-hours than it is entitled to, the other

may waive its time. The object is to keep the home plant loaded as completely as possible, while assuring each company fair access to it.

When high volume forces premium pay for second and third shift work, extra costs are split evenly.

• **People**—Another problem was Phillips' 100-odd manufacturing employees, involuntary victims of job consolidation. They make out pretty well. As S-B brings home work formerly subcontracted, qualified Phillips employees get first chance at the new jobs.

Then there are pensions. S-B has a plan based solely on earnings. Phillips had no formal plan. Now, any Phillips employee transferring to S-B before he is 50 will be eligible for the S-B program. Most pension plans are based on years of service plus earnings, but S-B requires only 10 years' service, then pays as much into the fund as if a man worked there for, say, 45 years. This made merging the employee forces fairly simple, with no past-service credit lost by Phillips' people.

• **Knotty**—There's only one knotty personnel problem remaining—seniority. Phillips' employees can be absorbed only so fast, but it is Wickwire's hope to establish a given date at which time all ex-Phillips men can start accumulating S-B seniority, regardless of when they began work for S-B.

An AFL International Assn. of Machinists contract with S-B, however, provides for plant-wide seniority. That complicates things. A Phillips man with 30 years' service might get bumped by an S-B man with 10 years'. If S-B changed to departmental seniority, then Phillips people would be grouped mainly in fabricating, S-B's mainly in machining departments. It would give old Phillips' hands a measure of protection in case of cutbacks by departments.

Even with the problems, S-B and Phillips think their arrangement can be used by other companies, even in combinations of more than two.

This particular case was easier than most. Both Phillips and S-B had shifted production into the one-story Carnegie plant just this year; Phillips is still in the process of moving. There was some thought in mind at the time the companies acquired the two sections of the plant that such a pooling was feasible. All that was needed to put the plan into effect, once it was agreed on, was a cutting torch to open a door between the two companies.

But Wickwire says you don't need to start with a common building to pool manufacturing. He believes the advantages to companies with complementary production lines are big enough to interest insurance companies in financing new joint plants on a lease-back arrangement.





Yes, U. P. freight men do get around. They're calling on shippers and receivers of all types of commodities. This means getting close to many transportation situations. It's possible that just yesterday a problem came up that parallels a matter you've been mulling over. Perhaps discussing it with your nearest U. P. representative will help solve your problem . . . help you find a straight road to your objective—just as Union Pacific is the straight direct route across western America.

## UNION PACIFIC RAILROAD

(Offices in 70 cities throughout the U. S. A.)

## MANAGEMENT BRIEFS

Companies that want to set up their own airplane service for executives can get a package program from Flight Safety, Inc., New York (BW—Oct. 24 '53, p88). Started in 1951 as a training outfit for company pilots, Flight Safety has expanded into a full consulting service—surveying a firm's needs, picking a plane, redesigning it for executive use, hiring and training pilots.

Two more executive courses are starting this fall. In Honolulu, the Bank of Hawaii signed up 900 small business executives for six lectures. In Ohio, the University of Toledo is starting a management development course covering tax problems, marketing, personnel management, accounting, and public speaking.

A Univac, Remington-Rand's big electronic calculator, has been ordered for U. S. Steel Corp.'s National Tube Div. It will be used first to process payrolls.

Conrad Hilton, who snatched the Statler Hotel chain from under William Zeckendorf's nose (BW—Aug. 7 '54, p31), announced he was selling the 10 hotels to a private investor group, then will lease them back for operations.

Top sales executives of Devoe & Raynolds Co., paint company recently bought by Louis E. Wolfson, spent last week attending a special case study course in the marketing problems of companies in other lines. The idea: to give D&R executives a chance to pick up some ideas.

Engineers' job directory will be the name of a new venture by Decision, Inc., Cincinnati publisher of an annual job guide for June high school graduates. The engineer annual, due Dec. 1, sells space (top price, \$150 for a page) to companies that want to make a pitch for recruits. Decision will send the books to 149 universities and to professional societies and libraries.

Anti-recession and the role of the businessman is the subject of a recent paper of the Committee for Economic Development. What Business Can Do to Prevent Recession, Wages and Prices in Recession are some chapter heads.

Fringe benefits cost employers about \$720 per employee last year, according to the U. S. Chamber of Commerce. Figures released recently from a survey of 940 companies show that payments per employee were \$76 higher than the preceding year. Average payments were 19.2% of payroll.



up their  
utives can  
m Flight  
V—Oct. 24  
a training  
ght Safety  
consulting  
eds, pick  
executive  
ts.

re starting  
Bank of  
business  
In Ohio,  
starting a  
urse cover-  
personnel  
and public

big elec-  
ordered for  
Tube Div.  
s payrolls.

the Stat-  
William  
'54, p31),  
10 hotels  
then will  
ns.

e & Ray-  
recently  
on, spent  
case study  
blems of  
e idea: to  
e to pick

l be the  
Decision,  
an annual  
ool grad-  
ue Dec. 1,  
or a page)  
make a  
will send  
s and to  
aries.

the busi-  
ent paper  
omic De-  
an Do to  
and Prices  
er heads.

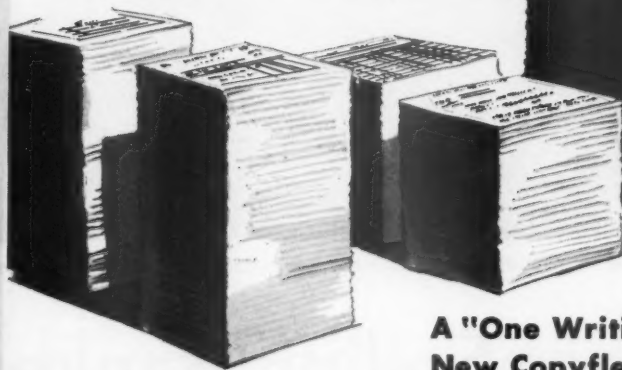
ers about  
according  
ommerce.  
a survey  
payments  
than the  
ents were

11, 1954

# Is Your Company Knee Deep in Paper Work?

**Now You Can Cut Paper Work  
in These Key Operations!**

- |  |  |
|--|--|
| <input type="checkbox"/> Invoicing           | <input type="checkbox"/> Purchase Orders   |
| <input type="checkbox"/> Financial Reporting | <input type="checkbox"/> Production Orders |
| <input type="checkbox"/> Receiving Reports   | <input type="checkbox"/> Back Orders       |
| <input type="checkbox"/> Accounting          | <input type="checkbox"/> Shipping Orders   |



## A "One Writing" Business System Based on the New Copyflex Model 100 Solves Your Problems!

Here it is! The compact, low priced, desk top copying machine that's ideal for "one writing" business system paperwork—that brings the advantages of mechanical copying within reach of practically any plant and office!

The Bruning Copyflex Model 100 turns out exact copies of invoices, purchase orders, statements—of anything typed, written, or printed on ordinary translucent paper—in

seconds. It makes up to 300 letter size copies per hour at a cost of less than 2¢ each. Produces copies up to 11 inches in width by any length. It is clean, quiet, and simple to operate. No stencils or masters are required. No messy inks or fumes are involved.

Let us show you how this versatile copying machine can help you cut costs and increase your operating efficiency. Mail coupon today!



**Bruning Copyflex Model 100—\$495<sup>00</sup>**

# BRUNING

Copies anything typed,  
written, printed, or drawn  
on ordinary translucent  
paper—in seconds.

## Copyflex

**SPECIALISTS IN COPYING SINCE 1897**

**Charles Bruning Company, Inc.**  
4700 Montrose Ave., Chicago 41, Ill., Dept. 316  
Please send me more information about the  
Bruning Copyflex Model 100.

Name \_\_\_\_\_ Title \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

COMPANIES



Last April, Diebold delighted bank architects with a streamlined, reengineered vault door, designed to harmonize with modern bank decor. But the 18,000-lb. job was too heavy to take to potential customers—so Diebold brought its customers (above) to the door.



SALES PITCH taken by A. W. Jackson, sales vice-president of Diebold, stresses both

## Selling Bankers



CONICAL REFLECTORS cut into the door's interior face plate throw interesting designs on rugs, also reflect light, color, and motion in the banking room.



TIME LOCK setting devices are concealed behind panels in the door's interior.

resses both the lifting and the improved mechanism of the new vault door. Picture at left shows door exterior, right shows interior.

## Kera High-Style Door for Vaults



LUNCHEON follows the demonstration. Because Diebold banks heavily on feminine reaction to the beauty of its door, the company made a special point of inviting wives.

Ten years ago, Diebold, Inc., of Canton, Ohio, started looking for a sales gimmick for the vault door, the product upon which the company was founded 99 years ago. Up until that time, vault doors were pretty standard, and competition in the industry was such that whichever company wielded the sharpest pencil usually got the order.

Last April, Diebold put its new "gimmick" on the market. The gimmick is still a vault door, but it's so streamlined and mechanically improved that it's hardly recognizable beside the conventional type.

• **Mass Demand**—The rush of orders that followed convinced Diebold that the redesigned and reengineered vault door—the first such undertaking in 50 years—is just what the well-dressed bank has always wanted. According to Pres. Raymond Koontz, the company has already received more than twice as many orders for the new basic vault door than



## How ACCO gives better values in its full line of wire ropes

• A bulldozer bucks a ridge of earth, bumps into a hidden rock that won't budge. The blade jerks the wire rope and the whole machine shudders. Then it backs off for another try from a different angle . . .

The bucket of a dragline is cast into a hole. Then it's pulled back in with drag rope sawing on rocks and whipping around in the dirt before winding on the drum . . .

The scoop of a shovel gouges out its load. The engine is throttled open for the heavy lift. A boulder falls off. The engine gains speed, the scoop snaps up, the boom and hoist ropes whip and jerk . . .

Every use of wire rope has its punishing factors. These conditions demand ropes made with characteristics that resist shock loads, abrasion and bending. These are the better value characteristics.

ACCO knows how to build better value characteristics into wire ropes because of the experience of its Hazard Division which began making wire rope in 1846.

Since then it has made and tested every conceivable construction of wire rope with possibilities of longer service life. ACCO's American Cable Division originated Preformed wire rope in 1924.

Today these better values offered by ACCO assure lower service costs. Over 500 distributors all around America stock these better value wire ropes. They will make recommendations of the best rope for each machine you operate. The better values will save you money.



# BETTER VALUES

## ...the Key to Better Business

*Business and industrial executives, faced with the problems of stepped-up competition, recognize that the need of the hour is better values. They are therefore improving their positions in their markets by improving product design, and by replacing outmoded machines, methods and materials with those better geared to today's needs. This widespread improvement in manufacturing and commercial procedures is making it possible for more and more businesses to offer the better values that are the key to better business.*

• ACCO products are designed and manufactured to be "intentionally better." They are used directly, or as component parts in a wide variety of products and machines. They help do many jobs better. • 16 Divisions of the American Chain & Cable Company manufacture more than 100 essential products. ACCO's most widely used products are:  
ACCO-Registered wire rope and chain slings • R-P&C valves • WRIGHT and FORD electric and hand hoists • WEED tire chains • AMERICAN welded and

weldless chain • PAGE chain link fence • HAZARD Lay-Set preformed wire rope • ACCO steel castings • PAGE wire and welding rods • TRU-STOP brakes • TRU-LAY cable and TRU-LOC swaged terminals for aircraft • TRU-LAY preformed wire rope • TRU-LAY push-pull controls • CAMPBELL abrasive cutting machines • HELICOID pressure gages • PENNSYLVANIA lawn mowers • MARYLAND bolts and nuts • MANLEY automotive equipment • "ROCKWELL" hardness testers • OWEN mattress and furniture springs.

Information on any ACCO product gladly sent on request.  
Address your inquiry to Market Development Department,  
American Chain & Cable Company, Inc.,  
929 Connecticut Avenue, Bridgeport, Connecticut

**ACCO**



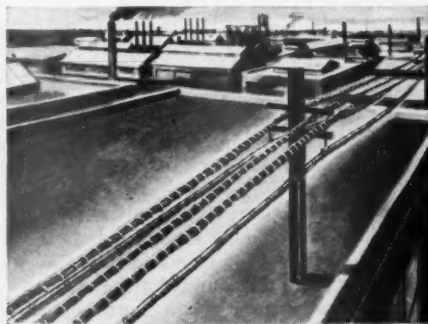
## American Chain & Cable

SALES OFFICES IN: Atlanta, Bridgeport, Conn., Boston, Chicago, Denver, Detroit, Exeter, Pa., Houston, Los Angeles, Monessen, Pa., New York, Philadelphia, Pittsburgh, Portland, Ore., Reading, Pa., San Francisco, Wichita, Kans., Wilkes-Barre, Pa., York, Pa.



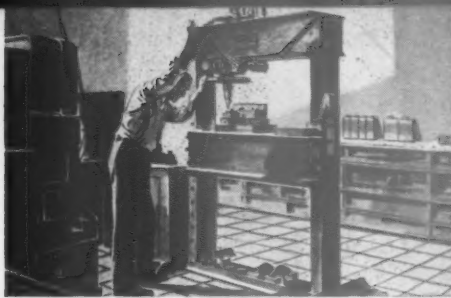
**AMERICAN CHAIN**

American Chain makes WEED tire chains, ACCO Registered sling chains, and all types and sizes of welded and weldless chain for plant use or product assemblies, and for transportation, farm and home use.



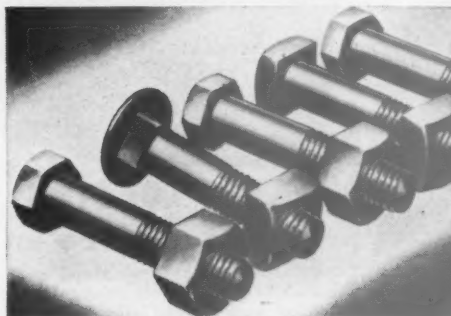
**PAGE STAINLESS STRAND**

The standard of excellence, PAGE stainless, corrosion-resistant strand can now be obtained in a range of sizes. Its elastic limit and strength-to-weight ratio adapt it for ground, guy, catenary, and messenger applications.



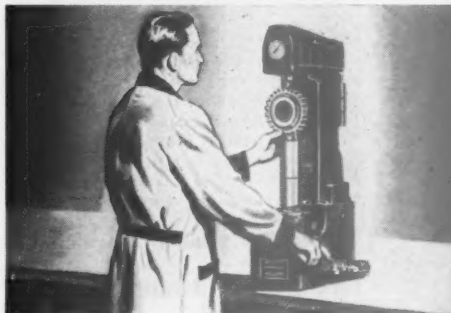
**MANLEY PRESSES**

Simple to install, easy to operate, profitable to own. They lower your maintenance costs and step up production. Four new air-operated MANLEY Presses increase the work you can do ... make you less dependent on outside services.



**MARYLAND BOLTS AND NUTS**

MARYLAND makes a line of bolts and nuts, 1/4" to 3" diameter, all lengths. All are available in the following finishes: hot and electro galvanizing, cadmium, nickel and copper plating. Facilities available for special fasteners.



**WILSON "ROCKWELL" HARDNESS TESTER**

Recognized as the leader, WILSON "Rockwell" Testers set the standards of hardness testing. Where exact hardness must be checked, in the laboratory or on a production line, there is no substitute for WILSON "Rockwell" Testers.



**WRIGHT HAND HOISTS**

It's easy to operate a WRIGHT Hand Hoist. Machine-cut reduction gears and ball bearings see to that. Sturdy yet light in weight, these hoists speed the job—cut costs. 1/4-ton to 25-ton. Also ratchet and electric hoists.



## WAYNE LOADING DOCK RAMPS

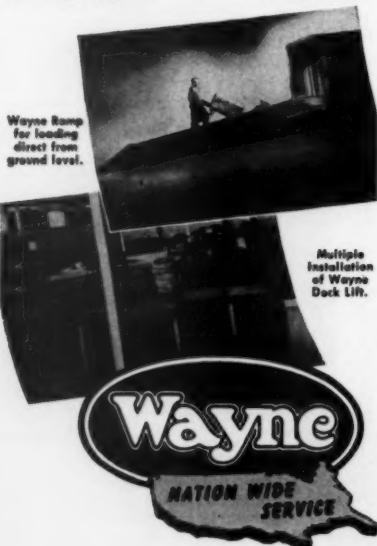
... tilt to meet the load. Hand or industrial lift trucks roll smoothly into truck or trailer from shipping bay.

Just touch the control and the quick-action hydraulic system raises the heavy-duty all-steel ramp to proper height. Cuts hours from shipping time ... speeds warehousing time and trucks ... gets more work done with cost ... leaves more road-time for less effort.

Wayne Industrial Lifts are engineered for you: Lifting and lowering heights, platform sizes, power units and controls fit your requirements exactly. This is all part of Wayne's "Liftronic" — the scientific approach to lift problems that designs Lifts for your job, builds them to fit your plant layout. Write today for "LIFTRONICS" — data book on complete Wayne line of Industrial Lifts.

### THE WAYNE PUMP COMPANY

Salisbury, Maryland • Toronto, Canada



WORKERS polish the vertical steel bars (left) that replace the 16-bolt device in the conventional type door (right) in the door's newly designed locking mechanism.



it had for any two previous years of the company's history. This in spite of the fact that the price ranges from \$13,500 to \$20,000—between \$4,000 and \$10,000 more than for the conventional 10-in. vault door.

• **Feeling Out the Market**—Diebold approached its new venture very cautiously. Bankers have the reputation of being skinflints when it comes to spending. So before it got too involved, the company sent out questionnaires asking its customers what they wanted in a vault door, in addition to the already present safety from tampering or opening. Diebold management was shocked by the answers. Practically everyone said in no uncertain terms that the conventional vault door was a monstrosity when it came to appearance.

Heeding this esthetic need, Diebold proceeded full speed ahead. The end result is a door that harmonizes with any type of architecture, and which has been immeasurably improved in its mechanical features.

• **New Marketing Pitch**—Up until this time, when a bank wanted a door for a new vault, it usually furnished each vault door maker (there are three in the U.S.) with specifications for the door to be purchased. The mechanism of each maker's door varied only slightly—the big difference was in the thickness of the door—and the outward appearance was practically the same. Then the three manufacturers would bid competitively for the job.

The bank's customer saw little of the door's outside, since the vault was open during banking hours. But while the thickness of the door and the shiny steel mechanism promoted a Fort Knox sense of security, it was a thorn in the side of bank architects—who usually tried to place the vault so that its door wouldn't mar the beauty of the counting rooms.

• **Expansion**—Originally, Diebold had

intended to pep up its sales talk simply by adding more gadgets to its vault doors. It figured the more gadgets, the more attention the door would receive—and it was primarily interested in the inside of the doors, since that's the side the customer sees. The outside—the janitor's view—didn't matter.

But after sounding out its clients, Diebold hired Charles Deaton, a St. Louis industrial designer, to redesign both the interior and the exterior. The company had settled on the 10-in. door (which with the equipment mounted on the back is actually 19½ in. thick) with a 78-in. by 32-in. entry or exit as standard.

• **Mechanical Improvements**—Diebold engineers then tackled the job of re-engineering the mechanism of the door. The first thing they did was to toss out the conventional door hinge. When the door was seated, it threw 16 bolts into slots provided for them in the door's frame. Taking a lesson from the retractable landing gear on modern airplanes, Diebold used the same principles to design a massive continuous hinge with dividing knuckles. A streamlined four-spoke wheel operates the seating and unseating mechanism of the door.

The locking change was the next to come in for attention. The 16 bolts were replaced by two full-height solid steel bars on each side of the door's interior. Continued turning of the hand wheel throws the locking bars into locked position. This locking mechanism is reputed to be 186 times stronger than the bolts used in the conventional type door.

• **Eye Appeal**—As these and other mechanical improvements were being made, the engineers were incorporating new exterior designs into the door. All the operating mechanism was hidden by face plates. The gate, used during the day when the door is left open, was



## Bright outlook for glass...

### Read about the part banks play in the manufacture and distribution of glass.

As early as 1609 colonial Americans were making glass containers in a crude Virginia factory. Then in 1827 a few enterprising Yankees scooped the world by figuring out a way to press molten glass.

Almost overnight the long dormant American glass industry came into its own.

At the outset private investors put up every penny for flat glassmaking. But it wasn't long before the glass craze demanded more products than

private capital could produce. So the bankers were called in.

#### Glass Money

Bank help to the glass industry began (and still begins) at the raw materials stage. Bank loans help provide the money for new equipment, research and plant expansion. On the retail side, bank loans frequently help hometown dealers stock a thousand and one products ranging from safety glass for your car to water tumblers for your table.

#### Your Dollars

As for the money that goes into these loans — the lion's share comes from the funds Americans deposit in their

banks. In competition with one another, banks lend this money to borrowers who can use it profitably in their businesses.

In the glass business (or any other going enterprise you can name) this movement and employment of money boils down to jobs for men and women, which in turn brings goods and services and better living to Americans.

Chase National Bank, first in loans to American industry, is proud of banking's contribution to the progress of our country.

**The CHASE National Bank**  
OF THE CITY OF NEW YORK  
(Member Federal Deposit Insurance Corporation)

ce in the

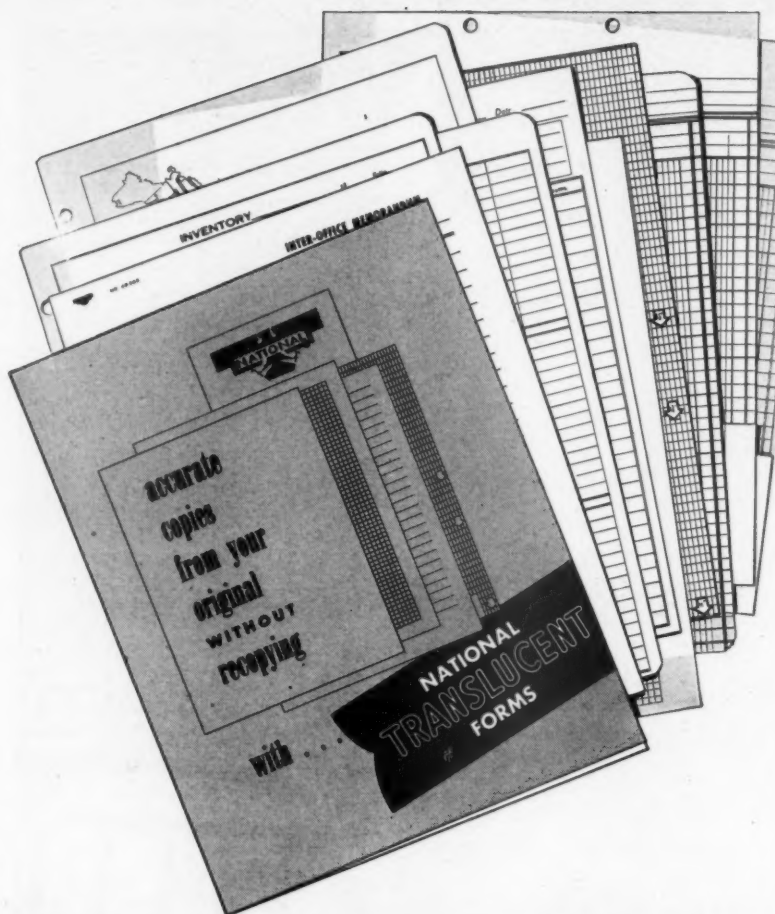
lk simply  
its vault  
gets, the  
d receive  
ed in the  
the side  
side—the  
clients,  
n, a St.  
redesign  
rior. The  
-in. door  
mounted  
a. thick)  
or exit as

Diebold  
b of re-  
he door.  
toss out  
When  
16 bolts  
in the  
from the  
dern air-  
e princi-  
continuous  
stream-  
ates the  
nism of

next to  
16 bolts  
ht solid  
e door's  
of the  
bars into  
mechan-  
stronger  
entional-

l other  
e being  
porating  
oor. All  
hidden  
during  
pen, was





## Speed Copy Work,

Prevent Errors...

In Accounting, Sales,

Every Department with

**NATIONAL Translucent Sheets!**

Yes, Production, Shipping, Research, Advertising and every department of your business can use National translucent sheets to advantage. Duplicate copies of original work can be turned out quickly, easily and with guaranteed accuracy by any direct print process such as Bruning Copyflex or Ozalid. No need for costly hand copying or proofreading. Copies are always facsimiles of the originals.

See your National Stationer for a kit containing samples of these forms or write us direct.

National translucent sheets are available in the following forms:

INVENTORY  
ORDER and INVOICE  
COMPARATIVE SALES RECORD  
INTER-OFFICE MEMORANDUM  
U.S. OUTLINE MAP  
8 x 8 INCH QUAD  
FORM LAYOUT SHEETS  
(PICA or ELITE SPACING)  
FEDERAL TAX FORMS 1040 and 1041



**NATIONAL BLANK BOOK COMPANY**

HOLYOKE, MASS. — Dealers Everywhere

redesigned away from the usual cell-like barred type to an open, or grill-like, pattern. Cladding (the area around the door) was designed so that clients could add decorative touches, such as bank seals.

Much to the company's surprise, many of its customers who had placed orders for the 3-in. and 7-in. conventional door switched to the new basic door as soon as they heard about it.

Diebold feels that acceptance of the basic vault door is only a foot in the door to what usually follows. Almost without exception, the company that sells the bank or institution the vault door also sells the safety deposit boxes and the rest of the equipment needed.

• **Outwitting Yeggs**—The Chicago fire of 1871 gave Diebold its real start. There were 687 Diebold safes in that fire, and their performance at that time brought in a flood of orders. Needing a new plant to meet the business, Karl Diebold, the founder, moved from Cincinnati to Canton in 1872.

At that time, Diebold built "safes to keep robbers out and jails to keep them in." Penal equipment making has long gone by Diebold's board. Even so, Diebold and the yeggs are still engaged in a running fight. Diebold thought it had them stopped when it came out with the manganese steel safe. The yeggs found a way to "blow" it with explosives. So Diebold turned them back by making a door that was "metal to metal" with no crevice to get the "soup" into, and the door was too hard a steel to be drilled. The yeggs won that round by burning their way in. So Diebold went to alarms and thicker doors.

But as vault doors became more impervious, the yeggs switched to the masonry enclosing the door and the vault. That boomed the alarm business for Diebold. Now it has gone into electronically controlled ultrasonic sound waves for sound systems.

• **New Products**—Diebold started to expand its list of products and holdings in the late 1930s. It bought a Canton company to acquire a hollow metal door and frame line. In 1943 it took over Visible Records Equipment Co., to put itself into the record, rotary, and vertical file business. In 1942 it crashed the microfilm business. It bought York Safe & Lock safe and vault business in 1947, and the same year it bought O. B. McClintock Co. of Minneapolis—a bank security equipment company.

Clint Murchison—the fabulous Texan of New York Central—Robert Young fame—holds controlling stock in the company.

Diebold does not build the masonry part of a vault. It does furnish in addition to the vault door the steel vault lining, the complicated device for getting fresh air into a vault in case a



cell-like  
grill-like,  
ound the  
t clients  
such as

surprise,  
and placed  
conven-  
new basic  
out it.

ce of the  
ot in the  
Almost  
any that  
the vault  
osit boxes  
needed.  
icago fire  
real start.  
s in that  
that time  
Needing  
ness, Karl  
rom Cin-

"safes to  
keep them  
has long  
Even so,  
engaged  
ought it  
ame out  
fe. The  
it with  
ed them  
s "metal  
get the  
too hard  
ggs won  
way in.  
d thicker

more im-  
to the  
and, the  
rm busi-  
one into  
ultrasonic  
s.

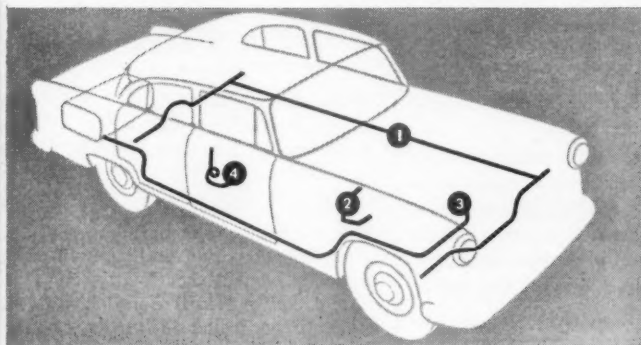
arted to  
holdings  
Canton  
w metal  
it took  
ent Co.,  
etary, and  
crashed  
ght York  
business in  
bought  
neapolis  
company.  
as Texan  
Young  
in the

masonry  
in addi-  
cel vault  
for get-  
case a

11, 1954



## Has he wobbled his last step, or will your brakes work?



- 1 Dependable brake lines—one reason Bundyweld is used in 95% of today's cars, averaging 20 applications each.**
- 2 Oil stays where it belongs when oil lines are made of leakproof Bundyweld. No costly repairs or ruined engine.**
- 3 Gasoline lines take heavy punishment from flying stones, constant vibration. Bundyweld helps keep them leakproof.**
- 4 Push-button windows must be foolproof. That's why auto makers use Bundyweld to conduct the hydraulic fluid.**

Chances are good that he will reach his mother's side safely. One sound reason: your hydraulic brake lines are made of Bundyweld Tubing.

The manufacturer of your car works tirelessly to make it as safe as possible for today's high-speed driving. That's why he specifies Bundyweld for vital tubing lifelines. Bundyweld is leakproof, almost immune to vibration fatigue, and 15 times stronger than necessary to protect your life.



Made by the world's largest producer of small-diameter tubing, Bundyweld Steel Tubing is the only tubing double-walled from a single metal strip, copper-bonded through 360° of wall contact.

# BUNDYWELD TUBING®

"The lifelines of your car"

BUNDY TUBING COMPANY • DETROIT 14, MICHIGAN

**How trucks brought a  
"hermit community" new life  
and raised its standard of living**



Woodbury's pride, the Cannon County courthouse. Like 13 other Tennessee counties, Cannon County depends solely on truck transport

There are more than 25,000 former "hermit communities" in the United States—cities and towns 10 miles or more from the nearest fixed transportation. Woodbury, Tennessee, is a good example of the way the mobile trucking industry has given these communities a new lease on life, so they can share in American production as well as consumption.

Years ago Woodbury, Cannon County seat, had a population of 663. Today it has climbed past the 1200 mark. Explaining this growth, Mayor Marshall Duggin cites the benefits trucks have brought to his town:

"There's no such thing as an isolated community any more. Highways, automobiles and motor

transport give any community the chance to grow. Woodbury has simply taken advantage of it. We've struck a balance between agriculture and industry. Two new industries, with a payroll of \$1,500,000, employ 800 to 900 people here. If it weren't for trucks, none of the industries would probably be located here. In fact, I don't see how we could exist at all without trucks. *They bring in everything we have and haul out everything we grow and make.*"

Trucks are the only transportation agency that serves all America—including the 25,000 inland communities that used to be cut off from the main stream of American life!

***If you've got it... a truck brought it!***



Mayor  
Marshall Duggin



Colonial Shirt Corporation is one of the new Woodbury industries made possible through truck service to Cannon County. It furnishes employment to hundreds of people and contributes thousands of dollars to Woodbury's payroll.



**American Trucking Industry**

American Trucking Associations, Washington 6, D. C.

person is locked inside, and other vault equipment.

One big reason for the mounting interest in the new Diebold door is that bank renovating and remodeling is now more interesting to bankers since they can use the new door as an asset rather than something to be hidden. More potent reasons, however, are the increasing number of new branch banks, and the spread of savings and loan associations.

• **Clinching the Sale**—The company's weightiest problem, after it had designed its new door, was how to display it to potential customers. Carrying an 18,000-lb. door around the country was cumbersome and too expensive. So Diebold brings its customers to its Canton salesrooms, located in a shopping center and removed from the company's plant.

Just to be sure that none of the esthetic qualities of the door are lost on the less observant male, Diebold makes a point of having customers bring along their wives. The company figures that feminine reaction to the beauty of the door will sell the product easier than a lot of fast sales talk.

## COMPANIES BRIEFS

Society Brand Clothes, Inc., will become Industrial Development Corp. next month. It sold its men's clothing business to Hart, Schaffner & Marx and will go into new lines of business. Hart, Schaffner will continue the Society Brand label.

Owens-Illinois Glass Co. is developing a new glass sand deposit at Ione, Calif., to supply its big glass container plant in Oakland.

Weed killers of the hormone type did a fine job of killing undergrowth along rights of way of Southern Bell Telephone Co. in North Carolina, but the company has called off further spraying. It's a public relations gesture—the company got too many complaints about the brown, scorched-earth appearance of the roadsides as all wide-leaved vegetation died.

High-fidelity radio has gained so many adherents in Southern California that radio station KFAC, Los Angeles, has moved its FM transmitter to a new site atop Mt. Wilson. In the new location, the station gives first-rate coverage of 8,300 sq. mi., compared with 720 sq. mi. from its former site. It claims its audience will increase from 3.5-million to 5-million.

her vault  
nting in-  
r is that  
g is now  
nce they  
et rather  
n. More  
the in-  
h banks,  
nd loan

company's  
had de-  
to dis-  
Carry-  
nd the  
too ex-  
its cus-  
oms, lo-  
removed

of the  
are lost  
Diebold  
customers  
company  
to the  
product  
lk.

will be-  
Corp.  
clothing  
& Marx  
business.  
the So-

eloping  
, Calif.,  
r plant

ype did  
h along  
l Tele-  
out the  
praying.  
e com-  
about  
earance  
d vege-

o many  
ia that  
es, has  
a new  
e new  
te cov-  
te. It  
e from

1, 1954



## Figure-facts come fast with **Multi-Flex Control** on the **Underwood Sundstrand Adding Machine**

A business moves on facts.

You can get *your* figure-facts faster... by using the new Underwood Sundstrand **MULTI-FLEX** Adding Machine.

You'll get simplified *4-point control*. It's *faster... quieter... easier to operate... simpler to multiply*.

New, advanced design, plus the famous Underwood Sundstrand 10-key Touch Method brings you:

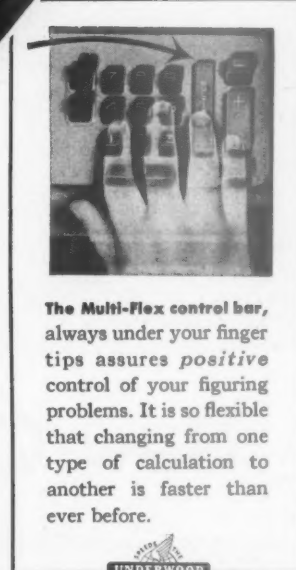
- ...approximately 20% faster cycle speed
- ...new Multi-Flex Bar, for faster multiplication
- ...easier correction of errors with new electric correction key.

Your operators will welcome the *quiet* performance of this new machine...its smooth, cushioned, untiring action!

Call your Underwood Representative, listed in the Yellow Pages of the Telephone Directory. Ask him for a demonstration of the new Underwood Sundstrand Adding Machine. You'll see how figure-facts *roll* with Multi-Flex Control.



### Underwood Corporation



The Multi-Flex control bar, always under your finger tips assures *positive* control of your figuring problems. It is so flexible that changing from one type of calculation to another is faster than ever before.



Adding Machines...  
Accounting Machines...  
Typewriters... Carbon Paper...  
Ribbons... Punched Card  
Equipment... Electronic  
Computers

One Park Avenue, New York 16, N. Y.  
Underwood Ltd., Toronto 1, Can.  
*Sales and Service Everywhere*



# INDUSTRIES

## Where You Hunt for Oil.... And Where It's

Geologists rate these big basins (shaded areas) as more likely to have oil than are other areas.



## New Oil: So Far, the Hunting Is G

Until last February, Nye County, Nevada, was just another name on the map. Today—in the oil industry, at least—nearly everybody knows where Nye County is. The cause of this geographical education is simple: Last February, a Shell Oil Co. drilling rig, operating in Nye County, hit oil at 6,430 ft. down.

This discovery was significant in many ways. For one thing, Shell's well was the first in Nevada to be completed as a commercial producer; it brought

Nevada into the ranks of the nation's oil-producing states. More important, though, was the possibility that the well opened up a new oil province—the Great Basin area of Nevada, which spreads over some 70,000 to 80,000 square miles of the state (map). For that reason, news of Shell's discovery touched off a frantic land-leasing boom in the state, a boom that is still going strong.

Though Nye County is a dramatic example of oil exploration in the U.S.

today (Shell found oil in an area where 75 previous wells had found nothing), it is not unusual. What Shell did in Nevada, other oil companies are trying to do in Washington, Alabama, Georgia, Florida, and in a dozen other areas. The reason for this effort lies in the nature of the petroleum industry itself: Exploration is the very core of the oil business; only by hunting for new oil can the industry hope to keep up with the country's appetite for more and more petroleum products.



## Where It's Been Found

Here are the best-known of the U. S.'s fields — either major producers or of historic interest:

Number on Map	Field	Discovered
1	Drake Well	1859
2	Bradford Field	1861
3	Allegheny Field	1879
4	Bridgeport Field	1906
5	Salem Field	1938
6	Smackover Field	1922
7	Caddo Field	1905
8	Delhi Field	1944
9	Tinsley Field	1939
10	La Fitte Field	1935
11	Jennings Field	1901
12	Spindletop	1901
13	Conroe Field	1931
14	East Texas Field	1930
15	Tom O'Connor Field	1934
16	Seeligson Field	1937
17	Yates Field	1926
18	Spraberry Field	1951
19	Wasson Field	1936
20	Snyder Field	1948
21	Burk-Burnett Field	1912
22	Oklahoma City Field	1928
23	Glennpool Field	1905
24	El Dorado Field	1916
25	Trapp Field	1939
26	Beaver Lodge Field	1951
27	Cut Bank Field	1932
28	Salt Creek Field	1906
29	Rangely Field	1902
30	Long Beach Field	1921
31	Wilmington Field	1935
32	Ventura Field	1916
33	Orcutt Field	1903
34	Midway-Sunset Field	1901
35	Elk Hills Field	1919
36	Coalinga Field (E-W)	1900
37	Coalinga Field (nose)	1938

©BUSINESS WEEK

## Is Good

### I. For Gamblers, Only

This year, the oil industry will drill an estimated 48,400 wells in its search for new supplies. Of these, more than 11,000 will be wildcat wells—drillings in new areas away from known production where companies hope to locate new pools or sizable fields. These areas, theoretically, are almost as wide as the map itself; it's estimated that the sedimentary structure considered favorable for oil occurrence in the U.S.

## THE END OF ANOTHER



## old American custom

"WET PAINT" signs are no longer needed.

Today paint dries in 10 minutes — when it's made with National's patented polyvinyl acetate emulsions. You hang pictures and draperies instead of "WET PAINT" signs. Or if you're in the mood, you can start the second coat immediately. Without moving scaffolding or cover cloths. Using roller, brush or spray.

These amazing new paints are washable. They don't "yellow" or become brittle with age. They have only a slight, pleasant odor that disappears with drying.

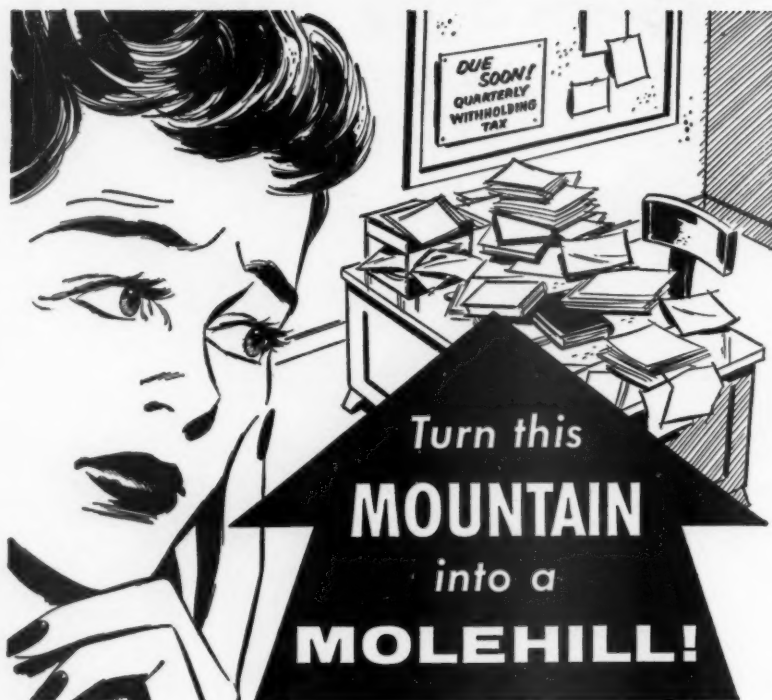
Here again, National's resin research is leading the way in changing the American scene.

STARCHES

**National**  
RESYNS®

ADHESIVES

National Starch Products Inc., 270 Madison Ave., New York 16, N. Y.



## Put the Todd **FORM-MASTER** System to work on your payroll records

It's easy to see what's causing all the confusion in this bookkeeping department! It's those dreaded quarterly tax reports. They mean overwork, overtime, more overhead. They must be ready on time or else...

Why not take steps right now to prevent a repeat performance of this scene next January?

It's as simple as this:

Put the Todd FORM-MASTER System in operation in your office. With it, any clerk or bookkeeper can prepare your quarterly tax reports without tying up the individual employee earning records and without costly overtime. It changes a major accounting task to a minor bookkeeping operation.

If you haven't already asked for details about the Todd FORM-MASTER System, mail coupon now. There's no time to lose.

### THE TODD COMPANY, Inc., Rochester 3, N. Y., Dept. BW

Gentlemen: I'm interested in learning how the Todd FORM-MASTER System can help us prepare quarterly payroll tax reports. Please have your representative contact me for a demonstration—without obligation on my part.

Your Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

Phone Number \_\_\_\_\_



BW-9-11-54

DISTRIBUTORS THROUGHOUT THE WORLD

covers about 80% of the country.

All this exploration and drilling will eat up a major chunk of the \$2.2-billion that the oil industry figures to spend on production during 1954. An estimated \$350-million to \$450-million will be spent on geophysical work alone, just looking for likely new areas to drill in. On the average, one major oil company figures it spends \$112,000 on a wildcat well. For wildcatting in far-off areas, it's not unusual for the cost to range from \$250,000 to \$1-million (Shell spent almost \$1-million in Nye County).

• **Odds**—Considering the size of the stakes, the gamble is a big one.

Before an oilman decides to drill a wildcat, he is confronted with the facts that he has a 1 in 16 chance of hitting a very small—and possibly unprofitable—oil field; a 1 in 53 chance of hitting a small oil field; a 1 in 330 chance of hitting a medium field; and 1 chance in 991 of hitting a large one.

Last year, for instance, 40% of all wells drilled turned out to be dry holes. That covered all sorts of wells, including those drilled to extend known fields where the chances of success are comparatively high.

These odds, though impressive, have to be stacked against an equally impressive payoff. And in the end, it has been the payoff—the reward for success in wildcatting—that has kept the oil industry a good jump ahead of the steadily growing demand for its products.

• **More than Enough**—For the past seven years, the demand for oil has been increasing at an annual rate of about 5%. This year demand will run at an estimated 8.2-million bbl. a day, about 6.5-million bbl. of which will be supplied by domestic production.

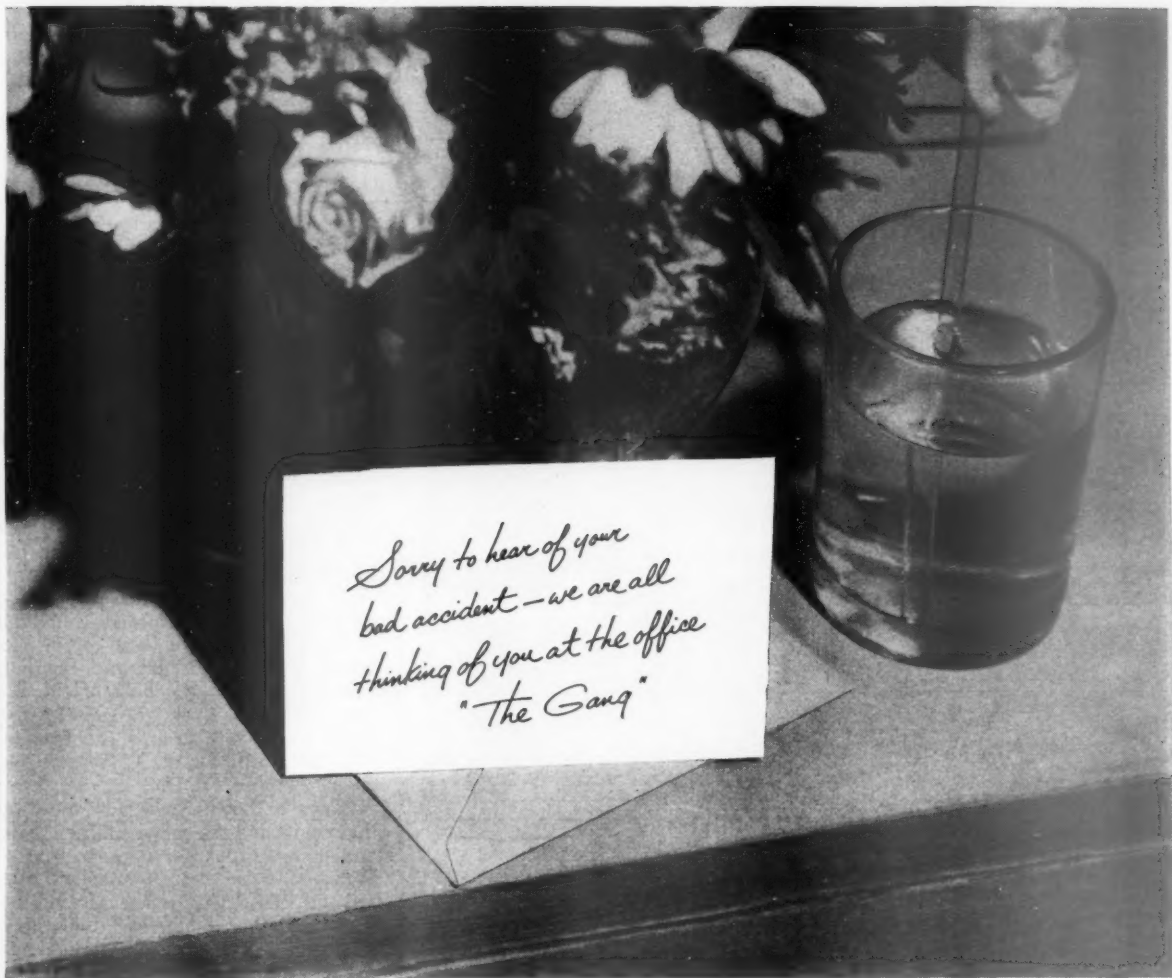
"I get a headache," one oil executive says, "every time I go to work in the morning and remember that by the same time tomorrow morning, the industry has to find 6.5-million bbl. of new oil just to break even." Yet the truth is the industry has managed to do better than break even for a long, long time. Over the past 14 years, it has found roughly 1½ bbl. of new oil for every barrel consumed.

The process of finding these new supplies has meant an ever-widening oil province. In the last two years alone, three states—South Dakota, Arizona, and Nevada—have been added to the ranks of the nation's oil producers.

## II. Wildcats Everywhere

There was a time when the major oil companies didn't worry much about oil exploration. They were content to let the independents do the exploratory drilling, then buy up the production.

That's still true to some extent; last



## HOW YOU CAN HELP YOUR EMPLOYEES MEET MAJOR MEDICAL EXPENSES

**Equitable offers management a way to lighten the burden of ruinous medical bills for its employees**

A heart attack...cancer...a bad accident. These *can* happen to your employees and their families!

A prolonged illness or a serious accident can pile up staggering medical bills. As a result, an employee who returns to work deep in debt, may be distracted and worried—unable to keep his mind on his job.

### **The problem management faces**

Modern management—in cases like this—is sympathetic and understanding...and aware of a fundamental obligation.

Equitable offers an answer: three

basic Group Major Medical Expense Plans, any one of which can be adapted to your company's needs.

This type of protection is vital, *whether or not* your employees are now covered by the usual medical and hospitalization plans.

### **How the Equitable Plans work**

These far-reaching Equitable Plans help your employees pay for costly major medical expenses—bills for physicians, surgeons, medicines, hospital, professional nursing care and other items that can quickly wipe out an employee's life savings.

The cost of this insurance is amazingly low compared to the protection it gives you and your employees.

Your Equitable Representative can help you bring to your employees—and to yourself—peace of mind. The Equitable also offers *Individual* Major Medical Expense Policies, for both you and your family.

THE  
**EQUITABLE**

LIFE ASSURANCE SOCIETY OF THE U. S.  
HOME OFFICE: 393 SEVENTH AVE., NEW YORK 1, N. Y.

country.  
ing will  
billion  
spend  
n esti-  
on will  
alone,  
as to  
major  
12,000  
ing in  
or the  
\$1-mil-  
lion in

of the

o drill  
th the  
ance of  
oly un-  
chance  
in 330  
ld; and  
ge one.  
of all  
y holes.  
includ-  
n fields  
re com-

e, have  
impres-  
as been  
cess in  
l indus-  
steadily  
ects.

ne past  
oil has  
rate of  
will run  
a day,  
ch will  
ction.

execu-  
o work  
that by  
ing, the  
on bbl.  
Yet the  
aged to  
a long,  
years, it  
new oil

ese new  
ning oil  
s alone,  
Arizona,  
to the  
ers.

e  
e major  
ch about  
tent to  
ploratory  
uction.  
ent; last

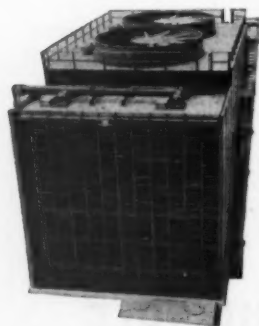
11, 1954



## If purchasing agents bought **PROCESS COOLING WATER...**

Management would be even more keenly aware that water is worth saving. Cost-conscious P.A.'s would point out that water, like other raw materials, has a price — a very substantial price in any industry that requires process cooling, air conditioning or refrigeration. They would be keenly aware of the relationship between water cost and production profit.

Unless every drop of cooling water in your plant is doing its job 20 times over, the cost ratio is wrong, but correction is simple. Install a Marley cooling tower to recirculate and cool the water and you effect an immediate reduction of more than 95% in water consumption.



Every Marley cooling tower is the product of more than thirty years of specialized engineering research and development. With Marley, water cooling is science, not a sideline. That's why you should take your water conservation problems to a Marley application engineer. You will find these specialists in 52 major cities, eager to assist you without obligation.

Founder-Member  
Cooling Tower Institute

**The Marley Company**

Kansas City, Missouri



**"... big companies feel they can't afford to be at the mercy of the independents ..."**

**OIL starts on p. 120**

year, independents and small companies drilled 83% of all exploratory wells. But most of the big companies today feel they can no longer afford to be completely at the mercy of the independents. An indication of their readiness to hunt for their own oil is the fact that some of the major finds in recent years have been made by the big names in the industry. Amerada Petroleum opened up the Williston Basin; Ohio Oil Co. did pioneer work in the Denver-Julesburg Basin; Shell opened up Nevada; Humble Oil & Refining brought in the first field in Florida.

At present, the industry has leases on some 12% of the total land area of the U.S. Most of these are in the known productive states and the hot new areas, where the bulk of the exploration is going on. (Some 43% of Texas is under lease to oil companies; 67% of North Dakota; 27% of Colorado; 51% of Florida.)

• **Places to Look—**Right now most of the majors and dozens of independents are doing exploratory work in the Williston Basin of Montana and the Dakotas. Since 1951 when oil was first discovered in commercial quantities in the basin, 26 fields have been uncovered, and some \$200-million spent. In the Florida-Alabama-Georgia area, a sizable exploration program is continuing, despite the fact that more than 30 wells drilled in the southern and western part of Florida last year turned out dry. Humble has found two fields in Florida.

Dozens of rigs are at work in the Rocky Mountain area, the San Juan Basin in New Mexico and Colorado, the Delaware and Permian Basins in West Texas, and in the Four Corners area of New Mexico, Arizona, Colorado, and Utah. There is some exploratory drilling under way in Washington, although no commercial oil has been found yet. Kee-McGee Oil Industries and Phillips Petroleum Co. are both drilling in Alaska where the U.S. Navy spent \$45-million before abandoning its search. In Canada—especially in the Alberta area—a real boom is under way. Aquila Petroleum, Ltd., for instance, paid \$433,251 for a reservation of 99,000 acres, 40 mi. west of the Pembina field near Alberta. Skeptics label it "the most money ever paid for a moose pasture." Canadian reserves are now estimated in the 2.3-billion-bbl. range.

• **Tidelands—**Probably the hottest of



feel  
e at  
end-

p. 120

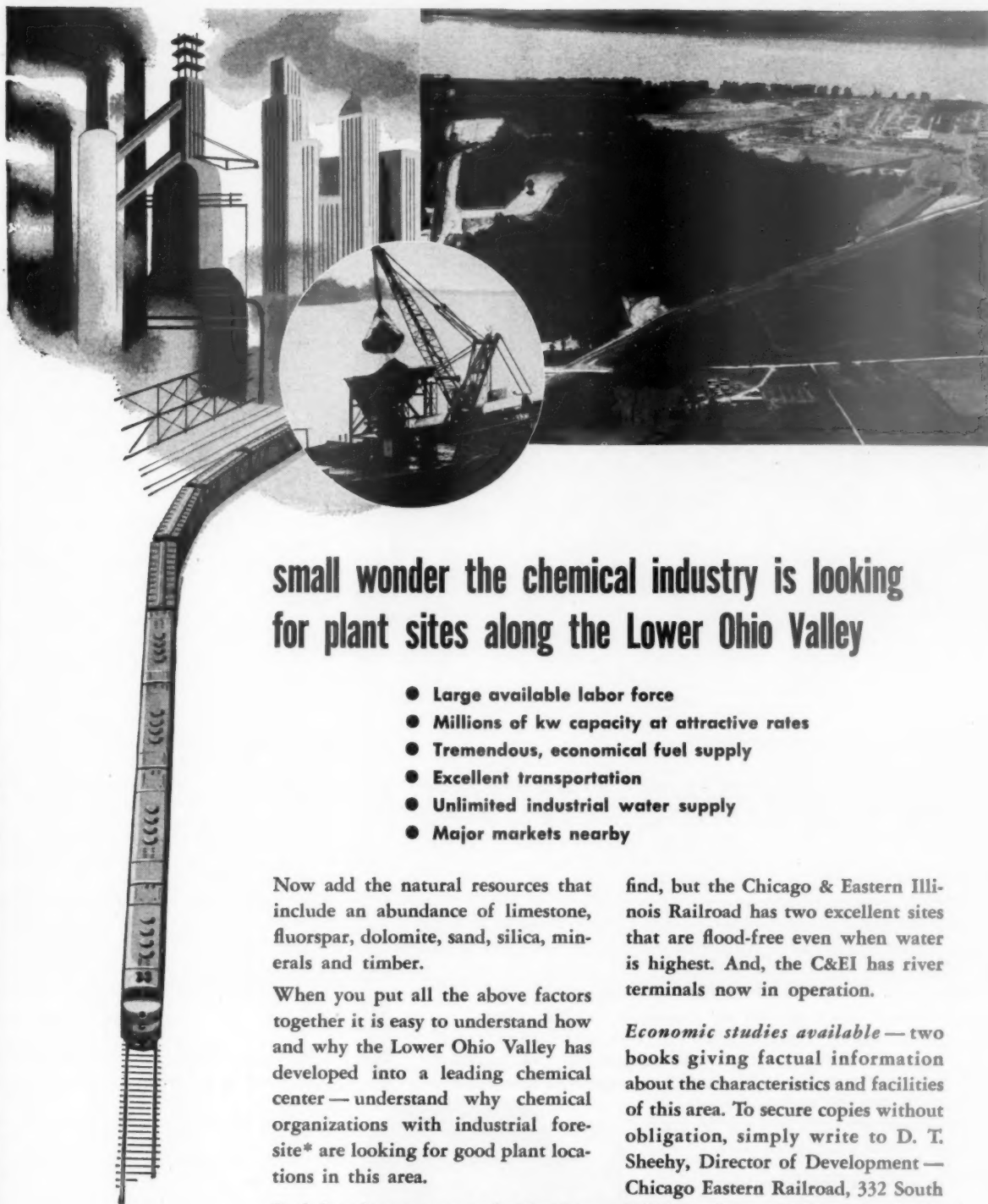
com-  
poratory  
panies  
afford  
of the  
their  
oil is  
r finds  
by the  
merada  
illiston  
r work  
Shell  
& Re-  
eld in

leases  
d area  
in the  
he hot  
the ex-  
3% of  
panies;  
of Col-

most of  
ndents  
n the  
nd the  
as first  
ntities  
en un-  
spent.  
a area,  
is con-  
re than  
rn and  
turned  
o fields

in the  
n Juan  
lorado,  
sins in  
Corners  
a, Col-  
explora-  
ington,  
s been  
dustries  
e both  
S. Navy  
adoning  
in the  
er way.  
istance,  
of 99,  
embina  
abel it  
moose  
re now  
range.  
test of

11, 1954



## small wonder the chemical industry is looking for plant sites along the Lower Ohio Valley

- Large available labor force
- Millions of kw capacity at attractive rates
- Tremendous, economical fuel supply
- Excellent transportation
- Unlimited industrial water supply
- Major markets nearby

Now add the natural resources that include an abundance of limestone, fluorspar, dolomite, sand, silica, minerals and timber.

When you put all the above factors together it is easy to understand how and why the Lower Ohio Valley has developed into a leading chemical center — understand why chemical organizations with industrial fore-site\* are looking for good plant locations in this area.

Such locations are somewhat hard to

find, but the Chicago & Eastern Illinois Railroad has two excellent sites that are flood-free even when water is highest. And, the C&EI has river terminals now in operation.

*Economic studies available* — two books giving factual information about the characteristics and facilities of this area. To secure copies without obligation, simply write to D. T. Sheehy, Director of Development — Chicago Eastern Railroad, 332 South Michigan Avenue, Chicago 4, Illinois.

*\*"Industrial Fore-site" — a shrewd management quality that gets the jump on competition by choosing plant sites with superior economic advantages.*



**CHICAGO & EASTERN ILLINOIS RAILROAD**



*They buy  
**BLANKS**  
instead of cartons*

*and make **LARGE SAVINGS***

Check with some of the most successful manufacturers, and you'll find that they are now making cartons in their own plants—from low-cost die-cut blanks.

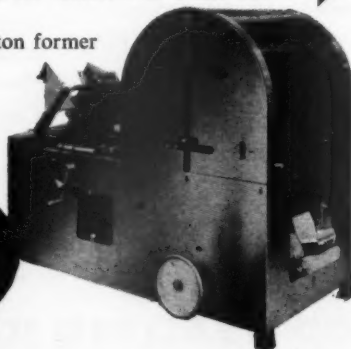
The machine they are using is our Model PA, which forms and glues up to 100 cartons a minute—and occupies only 3' by 6' of floor space. It requires virtually no attention while running. Operator merely keeps it supplied with blanks.

Savings usually pay for the machine in less than a year.

The Model PA can be adapted to form virtually any type of single or double-walled carton, using any carton stock, including corrugated material. It is adjustable for different sizes and fits readily into any packaging set-up.

Let us show you how the PA carton former can reduce your carton costs.

*Write for literature*



NEW YORK PHILADELPHIA BOSTON CLEVELAND CHICAGO ATLANTA DALLAS  
DENVER LOS ANGELES SAN FRANCISCO SEATTLE TORONTO MEXICO, D.F.

all areas today is the tidelands region off the Texas and Louisiana shores. So far, some \$300-million has been spent, and only \$50-million recovered.

Because of the high costs of operating in the tidelands, most oilmen figure they can go after only the big fields; smaller ones just aren't profitable enough. "It just means we are going to have to learn to walk away from 10-million-bbl. fields," one oilman says, "and we'd give our right arm to have them if they were on land."

Nearly all of the majors are now in tidelands. Gulf Oil Corp., which was the last of the big remaining holdouts, decided to join the swim last spring after bidding \$3-million for some choice leases.

### III. Will Oil Run Out?

If there is one single person who holds the key to oil exploration today, it is the geologist. He envisions the country's oil reserves as a vast collection of oil storehouses. The more oil you use, the sooner you get to the bottom of one of the storehouses. The trick—and this is the task of the geologist—is to fashion keys to open the other storehouse doors. And to do this requires new tools—even better instruments than the geologist has to work with now.

The big question is whether the oil industry can continue to find enough oil to meet growing demand and provide a margin of reserve, too. By 1975, Gen. Ernest O. Thompson, chairman of the Texas Railroad Commission, believes that demand will be in the area of 12-million bbl. to 14-million bbl. a day, compared with today's 8-million-bbl. level.

• **Record Now**—As of the moment, this much is certain: Oil reserves right now are at an all-time high. At the end of 1953, the American Petroleum Institute reported that estimated U.S. reserves of liquid hydrocarbons (crude oil and natural gas) stood at 34.3-billion bbl. At current demand levels, that would be enough to supply the country for more than 13 years, without another drop of oil being found.

But oilmen are certain more will be found. The tidelands alone, they figure, will be good for at least 5-billion to 10-billion bbl.; the potentials of Canada and Alaska are as great or greater. They see no chance in the foreseeable future of the country running out of oil.

This is pretty much the view of the Administration, too. Although under the Democrats, the Interior Dept. had pushed for synthetic fuels on the theory that petroleum might run out within the next 25 years, the Republicans see no real depletion threat. Interior's stand today is that the development of synthetic fuels is neither desirable nor necessary.

region  
ores. So  
a spent,  
operat-  
oilmen  
the big  
profitable  
e going  
y from  
an says,  
to have

now in  
ich was  
oldouts,  
spring  
some

on who  
today,  
ons the  
ollection  
oil you  
bottom  
e trick-  
ogist—is  
er store-  
requires  
ants than  
now.

the oil  
enough  
nd pro-  
y 1975,  
hairman  
ion, be-  
he area  
on bbl.  
million-

ent, this  
ht now  
end of  
nstitute  
reserves  
oil and  
on bbl.  
e would  
try for  
another

will be  
they fig-  
illion to  
Canada  
r. They  
e future  
oil.

of the  
under  
pt. had  
e theory  
within  
eans see  
s stand  
of syn-  
ole nor

11, 1954



## Big new weight-lifter signs up with Air Force

Biggest crane ever built for the U.S. Air Force is this floating heavyweight with a 50-ton design capacity.

Shown here flexing its muscles on a 56-ton load at 115 ft. radius during performance trials, it towers 100 feet high, has 145-foot boom. It's one of six floating cranes designed and built by Barium's Wiley Manufacturing Co., Port Deposit, Md., under supervision of the Navy's Bureau of Yards and Docks.

Point we'd like to make, though, is the way four separate Barium companies meshed operations to produce this job.

Steel plate was supplied by Central Iron & Steel, Harrisburg, Pa.; structurals came from Phoenix Iron & Steel, Phoenixville, Pa.; forged shafts were turned out by Industrial Forge & Steel in Canton, O.; while Wiley engineered, fabricated and constructed both crane and 144-ft. barge.

That's spelling out in detail what we mean by Barium's "integrated operations". It means a lot on the policy level, of course, but it really pays off for Barium's customers down on the level where things get done. Not all our customers order giant floating cranes, we'll admit, but you get the same kind of service from this 16-company team whether you buy tiny springs or railroad bridges.

Remember—to Barium your *entire* order is important. No danger of any component being delayed—Barium keeps a sharp eye on all processing. This means faster handling, less paper work, and pinpointed responsibility. "The Barium Story" fills in details. Write for a copy. BARIUM STEEL CORPORATION, 25 Broad St., New York City 4.



4.13

BAYONNE BOLT CORP. • CENTRAL IRON AND STEEL COMPANY • CHESTER BLAST FURNACE • CLYDE IRON WORKS, INC.  
CUYAHOGA SPRING COMPANY • EAST COAST AERONAUTICS, INC. • ERIE BOLT AND NUT COMPANY • GEOMETRIC STAMPING CO.  
GLOBE FORGE, INCORPORATED • INDUSTRIAL FORGE & STEEL, INC. • JACOBS AIRCRAFT ENGINE CO. • KERMATH MANUFACTURING CO.  
CO. • KERMATH LIMITED (CANADA) • PHOENIX BRIDGE CO. • PHOENIX IRON & STEEL CO. • WILEY MANUFACTURING CO.



A NEW LOOK FOR  
EXECUTIVE CORRESPONDENCE



AT LOW COST... with the  
**Smith-Corona**  
"Eighty-Eight"  
**Carbon-Ribbon Typewriter**

SEE the crisp, clean, print-perfect quality of the new Smith-Corona Carbon-Ribbon "write." It's distinctive, impressive, sharp and even, and at the same time warm and friendly. Each letter makes its impression through a fresh ink-area of the Carbon-Ribbon.



CALL ANY SMITH-CORONA FULL-LINE  
DEALER OR BRANCH OFFICE  
(See your Classified  
Telephone Directory)

Smith-Corona Inc Syracuse 1 N Y Other factories  
in Toronto, Brussels, Johannesburg. Makers also of famous  
Smith-Corona Portable Typewriters, Adding Machines and  
Cash Registers, Vivid Duplicators, Carbons and Ribbons.

## JOMAC

*The Name to Look for in Industry  
When You Want the Very Best*

- ▶ Industrial work gloves, handguards, safety sleeves and specialties for every industry
- ▶ Pads and gloves for bakers
- ▶ Press padding for laundries and dry cleaning plants
- ▶ Roller coverings, roller cleaners, rubber rollers for the graphic arts
- ▶ Rubber rolls for industry
- ▶ Write for literature and complete information on any of these products. Dept. A.

## JOMAC INC.

Formerly C. Walker Jones Co.

Philadelphia 38, Pa.

Plants in Philadelphia, Pa. and Warsaw, Ind.

## Cashing In on Tax Write-Offs

To make a play for small speculators, California real estate corporations are taking advantage of heavy allowable depreciation on old income-producing properties.

Southern California, which has hatched all kinds of ideas, is now serving as the testing ground for something new in real estate finance. It's a scheme for giving small speculators a chance to buy a piece of an income-producing property and extract their profit—if there is any—on the best possible tax terms.

Several corporations have already been set up to own and operate apartment houses or office buildings, with shares available to the public in blocks of as little as \$300. Other companies are in the process of formation.

To its enthusiastic boosters, the idea is the greatest thing since the invention of the amortizing mortgage. To chilly-eyed critics, it's a device for fast dealing that could easily be taken over by outright swindlers. At best, say the critics, it is likely to produce misunderstanding and chagrin among investors who don't study the fine print.

Whether the scheme takes hold and spreads to other, less trustful, parts of the country probably will depend on what happens to the corporations that are now operating. They haven't been going long enough yet to prove anything.

• **How to Do It**—Here's how the idea works:

First, the promoters scout the market for the sort of building they want. Ideally, it will be an old apartment house or office building—structurally sound, well maintained, and entitled under Treasury rules to a fairly rapid depreciation write-off (BW—Aug. 7 '54, p48). The older the building, the shorter is the assumed life over which the owner must depreciate his investment.

In such a building, the amount that can be deducted from taxable income as a depreciation charge will probably run just about as big as the net operating income (after other allowable expenses), and maybe even bigger. In other words, for tax purposes the property has little or no income.

Having spotted such a property, the promoters buy it. They assume the mortgage if there is one, or arrange a new mortgage if there isn't. (They need a mortgage to give their investment more leverage.) Then they issue shares—capital stock—representing the net equity in the property. These shares are sold to the public.

• **Cashing In**—If all goes well, income rolls in from the apartment or office

rentals. But since this income is wholly or mostly offset by the allowable depreciation and other expenses, the corporation pays no federal tax on it. Moreover, if it passes the income along to the shareholders, it is not—legally—paying a dividend but is merely returning capital. As such, the payments to the stockholders would not be subject to personal income taxes either.

After, say, 10 years, payments to the stockholders would equal the amount that they had originally paid in. At this point, technically, the capital stock account of the corporation would have been written down to zero. But the corporation would still own the building. If it then sold the property, it could liquidate, pay off what remained of the mortgage, and pass along any excess to the stockholders. This final profit would be taxed as a capital gain (maximum rate 26%) rather than as ordinary income.

• **The Hitches**—Essentially, the whole thing is a device for taking the best advantage of the depreciation provisions of the tax law. Large investors have been doing this for years. Theoretically, the use of a corporation with public sale of stock merely gives small investors a chance to cut themselves a piece of the same cake.

But the critics can see several objections to inviting the little man to travel in these higher financial circles:

• If a naive stockholder thinks of the regular payments to him as income rather than return of capital, he may spend the money, instead of saving it for reinvestment, and wind up with his investment wiped out.

• If the income that the property earns, plus what it brings on the final sale, is disappointing, the shareholder may never get all his money back.

• Fast operators could use the public sale device to unload sour properties they couldn't sell any other way.

• **The Start**—To all such objections, John B. Simmons of Real Property Investments, Inc., Los Angeles, has ready answers. There's a risk in any business, he says, and if the properties are soundly chosen, the risk in real estate isn't so great as in many other areas. Shareholders who read the prospectus, he argues, will know how to treat the regular payments that they get from the capital account.

Simmons' RPI is the outfit that pioneered the new scheme, although it no longer has the field to itself. The



ffs  
ornia  
ollow-

wholly  
ble de-  
he cor-  
on it.  
e along  
egally-  
return-  
ents to  
subject

to the  
amount  
in. At  
al stock  
ld have  
ut the  
build-  
erty, it  
ained  
ng any  
is final  
al gain  
han as

whole  
e best  
visions  
have  
etically,  
public  
all in-  
elves a

objec-  
o travel  
inks of  
income  
e may  
ving it  
with his

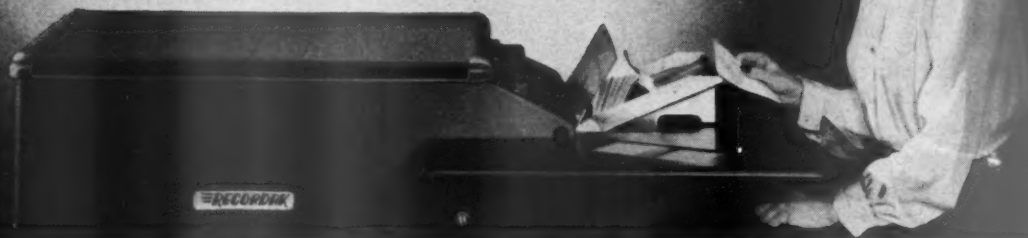
roperty  
e final  
holder  
k.

se the  
r prop-  
er way.  
ctions,  
rty In-  
ready  
usiness,  
es are  
estate  
areas.  
pectus,  
at the  
m the

t that  
ugh it  
f. The

1, 1954

Photographing 350 checks per minute in a Recordak Triplex Microfilmer, one of 6 models designed for copying office records.



## To cut your costs . . . Look to these everyday uses of Recordak Microfilming

Recordak Microfilming does much more than provide valuable extra protection and save up to 99% in filing space. It is being used today by over 100 different types of business . . . thousands of concerns—

☐ **To eliminate** costly manual transcription in daily routines. Cost studies show that, even where a few words are transcribed from one record to another, Recordak Microfilming saves time and dollars.

☐ **To get** a photographically accurate and complete record of checks prior to deposit in your bank. Time-consuming description is eliminated . . . errors, too.

☐ **To speed** data to other offices . . . allowing tighter control . . . eliminating manual transcription and mistakes.

☐ **To photograph** punched card reports. No need to produce them in duplicate—Recordak Microfilm copies cost less than carbons.

☐ **To make** a photographic record of any document in the fastest time and at lowest cost. Up to 250 letter-size documents or 500

check-size ones can be copied in a minute.

☐ **To cut** posting operations 85% in billing departments.

☐ **To speed** reference. No problem when data must be added periodically—Recordak Microfilming and Filmsort cards work hand in hand to simplify any job. (Recordak is an authorized Filmsort distributor.)

It will certainly pay you to double-check your routines with a Recordak Systems Man soon. Write Recordak Corporation (Subsidiary of Eastman Kodak Company), 444 Madison Avenue, New York 22, N. Y.



# RECORDAK

(Subsidiary of Eastman Kodak Company)

**originator of modern microfilming—and  
its application to business routines**

*"Recordak" is a trade-mark*

for better bookkeeping  
use **PARSON'S** popular

# MECHANO FORM

LEDGER PAPER AND INDEX CARD




**King Cotton says: "Any transaction that's worth recording at all is worth putting on paper that will keep the record as well and as long as you need it."**

The smallest item in office, shop or field expense is the paper that records are kept on. A paper not up to the job may mean many costly man-hours of copying — an expense more than the cost of all the fine paper you could use in years. For efficiency — which means saved man-hours — the paper and card you use must have a smooth no-glare surface so made that ink won't run or smudge, erasability, uniformity from piece to piece and a toughness that's obtainable *only* in paper made with *new* long, strong cotton fibers.

MECHANO FORM LEDGER is

made in white and six colors, 13 sizes and four weights. MECHANO FORM INDEX-BRISTOL comes in white and seven colors, five sizes and four weights. The colors match for "color control" — a time-saver if you have several departments, branches or classes of records. The eight weights make it possible for you to get a card or sheet as tough or stiff as you need, and the many sizes mean you can get almost any shape sheet or card you need, without waste. MECHANO FORM is made to match the requirements of either machine or hand bookkeeping.

## PARSONS PAPER COMPANY

Over 100 Years in Holyoke, Massachusetts

© PP CO 1954

### FREE VALUABLE BOOKLET

In these days of government supervision and control of records and documents, many must be kept for years. This new booklet tells how long various types of records should be kept, and what kind of paper is necessary to take the wear, and years of storage, each record must stand. It tells how to set up a continuing system of records control and how to save money in buying record-keeping paper and card. Every accountant, treasurer, controller, office manager and bookkeeper should have one. Send for your free copy today.

PARSONS PAPER COMPANY  
DEPARTMENT IM  
HOLYOKE, MASSACHUSETTS

Please mail me, without cost or obligation, your new booklet on records systems and retention and getting the right paper or card for various kinds of records. It's called "How to Get What You Need in Record Keeping Papers and Index Cards."

Name.....  
(PLEASE PRINT)  
Organization or  
Company.....  
Street.....  
City or  
Town..... State.....



company began operating its first income property in March, 1953, but the idea had gone through several evolutionary developments before that.

It grew out of a plan under which Bisno & Bisno, a Beverly Hills real estate firm, had been selling simple partnership interests in income property for years. They brought in as many as 200 owners in one property. This ended when the California Corporation Commissioner decided that B&B was more in the securities business than the real estate business. He suggested that B&B incorporate its widely held properties. But that deal ran into troubles, too. Eventually, this part of B&B's operations was split off and reorganized. Simmons was brought in as president and it was incorporated as Real Property Investments.

Simmons was an outsider, a Yale graduate of 1916 with a long background in investment and finance. He had a wallpaper company that was practically running itself, leaving him time to work out his ideas in RPI.

• **First Flights**—Simmons' first flier was purchase of the Key System building in Oakland. The Utilities Building Corp. was organized to buy the property at a cost of \$410,000, including \$35,000 for expenses of organization and sale of securities. The company sold stock at \$100 a share, with 10 shares as a minimum subscription.

For 10 months of 1953, income and expenses (including depreciation on the 41-year-old building) just about balanced. The corporation had to pay income tax on only \$3,194 net profit. Shareholders got nontaxable return-of-capital payments of 75¢ a share each month—an annual rate of 9%.

Next, Simmons promoted the purchase of two 27-year-old Hollywood apartment houses and a Pasadena apartment hotel.

• **Newcomers**—Late last year, another Los Angeles organization entered the field: Investors Realty Fund, Inc., headed by Alexander S. Wolanow. IRF specializes in apartment houses; Wolanow claims to control 107 apartments in the Los Angeles area, with his own and other people's money. His first public ownership deal was the Witner Manor Apartments, in which he outbid Simmons.

Wolanow sets a \$500 minimum for stock subscriptions by the public. Now he's working up a package deal: six buildings as a unit, with total investment of \$2-million.

A third company in the field, W. Ross Campbell Co., is planning to sell equities in new industrial buildings. This venture lacks the depreciation and tax relief possibilities of the deals in older buildings, but it also broadens real estate ownership and aims at a 5% to 7% return on investment.

# **SPRA-TAINER** *Does It Again!*

TURN  
SUN GLARE  
into  
SUN GLAMOR  
with the help of  
*Dorothy Gray*

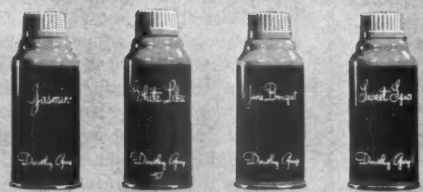
Share your place in the sun with this convenient, dainty spray product. Permits safe, even tanning. Counteracts burning. Helps keep skin soft and smooth.



A pressure product of quality needs a quality package to sell it. That's why TANNING OIL ATOMIST is packed in the "Modern Design" and safe, seamless construction of SPRA-TAINER.

As the first lightweight, low cost propulsion can on the market, SPRA-TAINER was created, not adapted, expressly for the pressure packaging industry. Dependable performance plus unequalled value and sales appeal keep it in the lead. Similar distinction is reflected over a wide range of other finest quality cans in Crown's Complete Line. May we tell you about them?

*One of America's Largest Can Manufacturers*

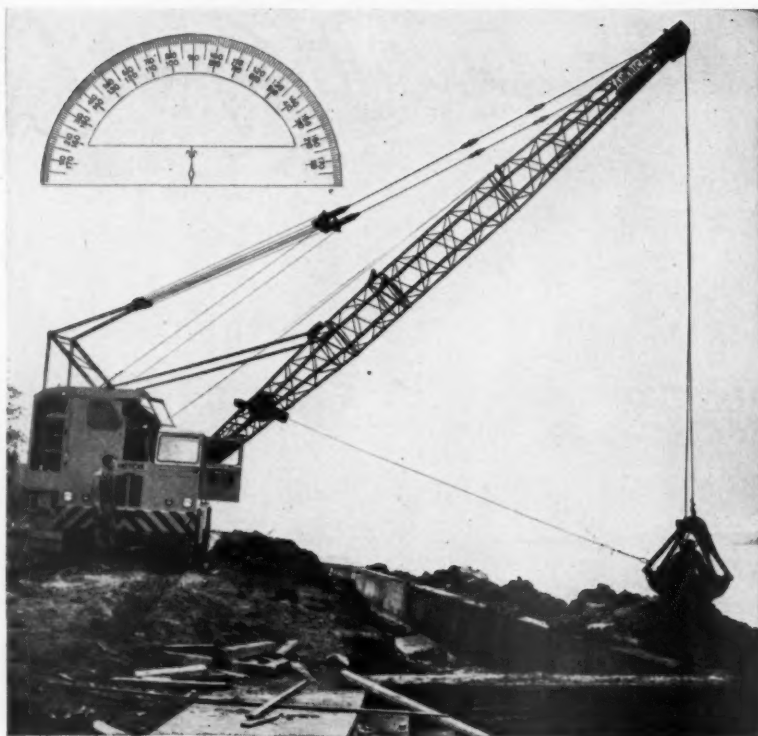


Colognes by Dorothy Gray in Crown SPRA-TAINER

**CROWN CAN**  
DIVISION  
CROWN CORK & SEAL COMPANY, INC.

PHILADELPHIA • CHICAGO • ORLANDO • NEW YORK • BALTIMORE • BOSTON • ST. LOUIS





## New Angle On Cutting Costs

It was a "problem" job. To keep costs in line on a seawall project, the contractors needed: first, a powerful machine with great stability that could operate on a mushy, tilting shoreline; secondly, a versatile machine that could handle a variety of tasks under these difficult conditions.

The American 375 Truck Crane meets these needs. Its rugged, built-in stability enabled the American machine to work at a low boom angle way out over the shoreline at Lake Washington, east of Seattle. The high adaptability of the American 375 enabled it to handle with ease and efficiency such jobs as excavating the footing site, setting and removing forms, and clamshelling sand from the old shoreline to form a new beach.

On projects across the nation, American products are stepping up production and cutting costs for contractors. Many of these projects are described in factual, on-the-job stories in the American Crosby Clipper. If your business is such that these stories are of interest to you, mail the coupon below. You will receive the Crosby Clipper regularly without charge.



## American Hoist and DERRICK COMPANY

American Hoist & Derrick Company  
St. Paul 1, Minnesota

Yes, I'd like to get the American CROSBY CLIPPER.

Also, send information on the following equipment:

— Hoists — Steel Derricks — Cranes — Portable Elevators  
— Genuine Crosby Wire Rope Clips

Name \_\_\_\_\_ Title \_\_\_\_\_

Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

208



Send coupon today!

## Steel Truckers . . .

. . . are in trouble as rails regain business via lower rates. ICC postpones hearings on rail-truck rates.

Eastern iron and steel truckers are squirming under the continuing pressure of a 15% rate cut by the rails. A new round in the tussle between rail and motor carriers began to shape up last March when the Interstate Commerce Commission granted East-Central rails a temporary cut which expires Dec. 31, 1955.

Since March, truckers' screams over declining business have been getting louder and louder. In the midst of the din, ICC adjourned hearings in its rail-truck rate probe until Nov. 9.

• **Big Bite**—Though many truckers regard a general business slump as one factor in their fading business, most agree that the railroads' rate cut has done the biggest damage.

One big steel hauler in the official territory (east of the Mississippi and north of the Ohio River) claims a drop of 60% in business this year, nearly half of which is attributable to the rate cut. Another hauler said the rate cut accounted for a 30% drop in business, while a big intrastate trucker estimated the cut had cost him 25% to 30% of his business.

All of the haulers say they've had to lay off drivers, that their yards are filling up with idle trucks, mostly because of the steel hauling business lost to the rails. Though truckers have been beating the bushes for new business, huge steel hauling trailers are idle because they can't be used for any other freight. In addition, truckers claim their own rates have such a low margin that it's impossible to cut them further to meet competition. With increased costs, they say, citing a recent 10% wage hike and the effects of the Ohio axle-mile tax (BW-Jan.23'54,p98), the going is getting tougher all the time.

• **Disappointed**—But the railroads haven't just been gloating over the results of the new schedules. In fact, many say they have been "slightly disappointed." One railroader estimated that the rails would have to recover 20% of the business previously dropped to truckers in order to make up the revenue lost by the rate cut—and even more than that to be profitable.

This is one reason railroad traffic men are keeping a close watch on the volume of business being recaptured from the motor carriers. Since statistics are not available, the over-all picture still has a lot of holes in it. But one railroad official gave this example:



Before the rate cut, a steel mill normally producing 130,000 tons a month shipped 67% of its outbound traffic by rail, 33% by truck. But in April, one month after the cut became effective, the same mill shipped 75% of its total 40,000-ton production by rail, and only 25% by truck.

• **The Long Haul**—While many rail officials believe it's too soon to make any predictions about the long-term effects of the cut, they are confident it will adjust the balance in their favor. If steel production takes a swing upward, they say, the rails are sure to get a healthy bite of freight business. This share might not match the 80%-of-traffic business which they had 10 years ago, one official said, but it will certainly better the 45% share to which the rails say they dropped before inception of the new rates.

Truckers in the Cleveland area, meanwhile, continue to howl. Their big beef is that 85% of flat rolled steel—used mainly in the auto industry—formerly moved by truck, but the high level of inventory now maintained by the auto industry has cut shipments sharply.

• **Gainers**—Steel producers, happily viewing the rate tussle, are saying little. Many believe that a sharper edge on freight competition will give them a cleaner cut on freight costs.

"In the long run," said one producer, "we and our customers will profit by the competition."

All things being equal, many producers say they would rather ship by rail for two reasons: (1) Mills have a heavy investment in facilities for rail handling; (2) rails are consistently good customers.

Yet producers are not unmindful of the advantages of truck freighting. Usually they cite these reasons:

• Steel customers more often have facilities for truck-handling than for rail-handling. This means a trucker can make spot deliveries to the customer's door, can pull his rig into the steel mill yard and supervise blocking and bracing of material. The same service costs a rail shipper almost \$30 a carload on an 80,000-lb. shipment.

• Protective shrouding and wrapping of shipments required by most steel haulers is furnished free by truckers, while a rail shipper pays about 5¢ per 100 lb. of shipment for the same service.

• Traffic control on shipments is easier for trucks than for rails.

• **The Point**—Either way, producers think they stand to gain by the rate war. As one steel traffic man put it: "It all boils down to this. We are interested in over-all transportation costs. If the rails offer us the services the trucks do—quick delivery, easy handling—then we'll give them our business."



## of the NATION'S NEWEST MARKET?



Business is good in the Nation's Newest Market—the fast-growing Southeast! Here are 22 million people with money to spend: Income is up over 305% since 1940, compared to a national increase of 237%. Here is a big and booming industrial market, too: over 17,000 new industrial plants have located Southeast since 1939.

### ROADS TO PROFITS

Easily accessible to everywhere, this great new market is crisscrossed with fast, dependable transportation via Central of Georgia and Savannah and Atlanta Railways. Both roads offer expeditious all-diesel service and maintain joint rates and routes to and from all markets through connections with 15 major railroads. Trained and experienced traffic representatives in all large cities make it easy to ship Southeast via the roads to profits—the Central and S&A.



Map shows routes of Central and S&A

### CHOICE INDUSTRIAL SITES AVAILABLE

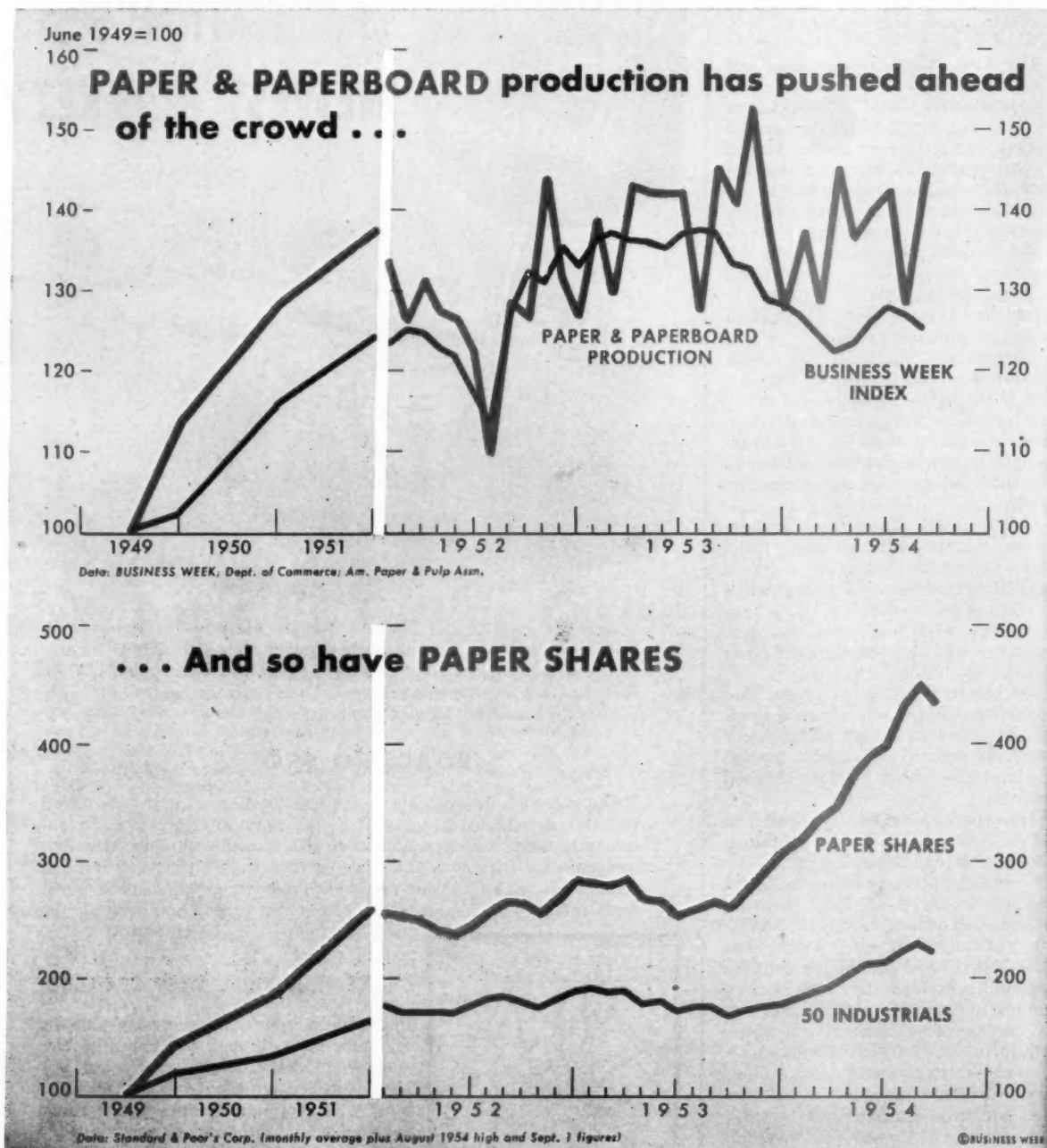
Many choice industrial sites are available for your new plant through the Industrial Development Department of the Central and S&A. 13 are river sites, from 200 to 2,500 acres, with exceptionally attractive features. For confidential information, write, wire or phone the address at left.

### INDUSTRIAL DEVELOPMENT DEPARTMENT

CENTRAL OF GEORGIA RAILWAY  
SAVANNAH AND ATLANTA RAILWAY  
501 Rhodes Haverty Bldg., Atlanta 3, Ga.



# FINANCE



## Good Deeds Dispel a Bad Name

The two charts above reflect a rather striking aspect of the bull market this year. Production of paper, the nation's fifth largest industry, has lapsed much less than has general business activity. That good showing has encouraged investors to boost the paper shares into the vanguard of the rising market.

This enthusiasm is something new; usually, stock buyers have shied off from paper shares whenever there has been anything resembling a business setback. Indeed, the industry has picked up a feast-or-famine reputation, though history shows that its operating rate has stood up fairly well in recession.

This time it is easy to see why the stock prices have held up, in the face of a business slide that's nearly a year old. Production last year was the biggest ever, with 26.6-million tons of paper and paperboard. What's more, U.S. consumption continued to top its production, with 31.2-million tons,



## “PC Glass Blocks made a beautiful building out of an old warehouse”

says Mr. J. T. Acree, Jr., President, Lincoln Income Life Insurance Co., Louisville, Kentucky

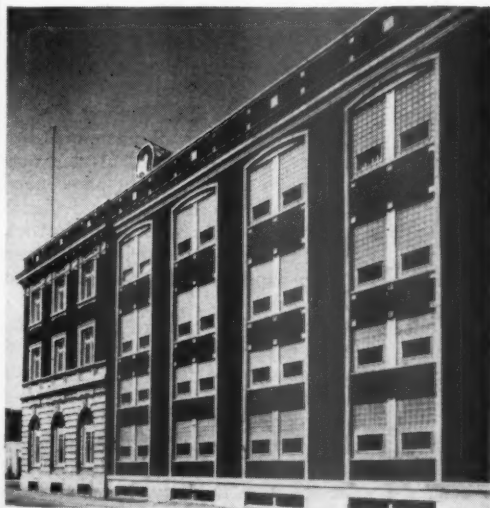


**T**HAT smart-looking building in the picture used to be a dairy warehouse. It had big steel factory windows that looked ugly. They rusted. The glass broke from warpage of the sash. Heating bills were high. And, since most of the windows were on the southern exposure, employees were overheated and blinded by the sun.

All these problems were eliminated when the building was re-modeled with PC Glass Blocks. These are *functional* PC Glass Blocks—the kind that throw the light up onto the ceiling where it bounces down, soft and diffused. The blocks only have to be washed once a year or so (compared to twice a month for ordinary windows), window blinds have been eliminated (you never need them with PC Functional Glass Blocks), and employees work in perfect comfort all year long.

Mr. Acree says, “We have received wide comment on the improved appearance of our building, and employees now work under the best possible lighting conditions. Also, our heating bills are lower due to the insulating qualities of the PC Glass Blocks.”

You can get results like this, too. Write for more information to Pittsburgh Corning Corporation, Dept. G-94, One Gateway Center, Pittsburgh 22, Pa.

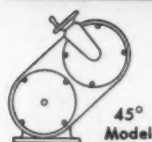


## PC Glass Blocks

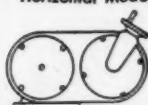


ALSO SKYTROL® AND FOAMGLAS®





Horizontal Model



## NEWEST DESIGN FOR VARIABLE SPEED

### Check all these new REEVES Features!

- 1 Speeds from 3 to 4660 rpm. Speed ranges to 10:1.
- 2 New "all-position" 14-turn handwheel control.
- 3 New "full-vision," sealed speedial indicator.
- 4 New horizontal or vertical down output shaft.
- 5 New spiral groove lubrication.
- 6 112 different assemblies to choose from.

**REEVES PULLEY COMPANY**  
COLUMBUS, INDIANA

Send today for  
new catalog.  
Specify Dept. 11a.



which is about 60% of the world total.

• **Doubts**—Last summer, when the economy as a whole began to slide, some skeptics shook their heads dubiously over the paper shares. Knowing the huge capacity that the industry had built up after the war, the doubters expected paper to slide still further. They were wrong. The slide didn't materialize, and the industry today is talking about 1954 as the second best year it has ever enjoyed.

• **Plus Factors**—The nature of the recession itself has accounted for much of paper's buoyancy. The recession has been caused basically by excessive inventories. And, since increasingly intractable costs have ruled out heavy price cuts, business has turned to heavy promotion and advertising to move the goods. Obviously, this meant a wider market for one part of paper production.

The busy building industry has helped, too. Construction is turning more and more to building board and other paper products, which has meant that these paper lines have slowed relatively little.

The paper industry itself has provided another boost, by digging up new uses for its products and by chipping away at costs so that paper can hold its competitive price edge over other materials. New types of packaging, industrial tissues and papers, new uses in construction have all been explored.

• **More People**—As for paper's future prosperity, the industry sets much store by the upward tilt of the population curve. A projection of that curve into the years ahead looks very rosy in the warm light of a per-capita paper consumption that hit 400 lb. per year in 1953. Most industry observers look for an annual production of 45-million tons by 1960.

Certainly, the enthusiasm for paper consumption showed no signs of dampening in the first half of this year. Nor was there any slackening of the heavy buying of paper shares by mutual funds and other institutions. In the face of marked drops in the activity of other industries, over-all paper production in first half 1954 was 15.4-million tons, only 1.8% below the 1953 period. If the second half holds anywhere near normal, 1954 should rank with 1953 and 1951, the trade's two best years.

To be sure, the 1954 totals mask some shifts in the product mix of the paper industry. Thus, in the first half, tissue was up 6.7% over the 1953 period and newsprint was up 6.3% but building paper was off 3.7% and paperboard—half of which goes into containers—dropped 3.6%. At that, paper board is rallying. One of the most important ingredients of the industry's product mix, it began to pick up as early as April. Newsprint has been a

mainstay, with U.S. and Canadian production climbing to another record high in July.

• **Backlogs Down**—The least pleasant statistics to emerge from the first six months are reductions in order backlogs. At the end of June, the backlog of orders for paperboard was 335,000 tons, a drop of 31.6% from its 1953 levels. Other papers were off 14.3%, to 540,000 tons in the same period. However, there has been an accompanying reduction of inventory that more than balances the shrunken backlog, according to most paper makers. Only in the Great Lakes states has any substantial inventory piled up, and this is due to the seasonal nature of timber cutting in the area. On the West Coast, the strike of timber workers has trimmed inventory to the bone. And Pacific Coast pulp mills had started the year with stocks below the 1953 level.

• **Growing**—The feast-or-famine label has been snipped off the paper industry by its postwar performance, according to most industry spokesmen. Since 1946, capacity has been increased 30.5%, production is up 43%, running this year at 90% of capacity.

The postwar increase in capacity breaks down this way: Newsprint is up 54%, wrapping paper 36%, tissue paper 30%, building board 52%, and paperboard 58%. By the end of the year, the industry expects to have added 302,000 more tons of paper capacity, and 458,000 tons for paperboard. This figures to an annual increase of 2.7%, a bit under the normal annual growth of 3.5%, but well up with the over-all industrial average.

• **Timber, Supplies**—The industry is not worrying about its supply of pulping wood. But it is planting about 500,000 acres a year just to ease the heavy postwar inroads.

• **Investment Angle**—The investor who has stuck to paper shares since the end of the war has done rather nicely. Most shares have gone up well in price, and dividends have been handsome. In the first half of this year 33 paper and publishing companies listed on the New York Stock Exchange paid out a collective \$61.9-million. Of all the industrials, only the aircrafts had a bigger percentage dividend gain over the year-ago months. Eight paper companies have boosted their dividends since late 1953. As in other industries, the end of the excess profits tax helped keep up paper earnings in the face of sinking sales.

As for prices, Standard & Poor's index of paper shares has risen 41.5% since the start of the year. Only four other groups (BW—Sep. 4 '54, p129) have exceeded that pace.

• **The Prospects**—Looking ahead, Wall Street analysts see good prospects for some of the industry leaders. They



Canadian  
record

pleasant  
first six  
r back-  
backlog  
35,000  
s 1953  
3%, to  
period.  
accom-  
y that  
n back-  
makers.  
has any  
nd this  
timber  
Coast,  
s has  
. And  
ed the  
3 level.  
label  
industry  
ording  
Since  
creased  
, run-  
y.  
capacity  
t is up  
tissue  
, and  
of the  
added  
capacity.  
l. This  
2.7%,  
growth  
over-all

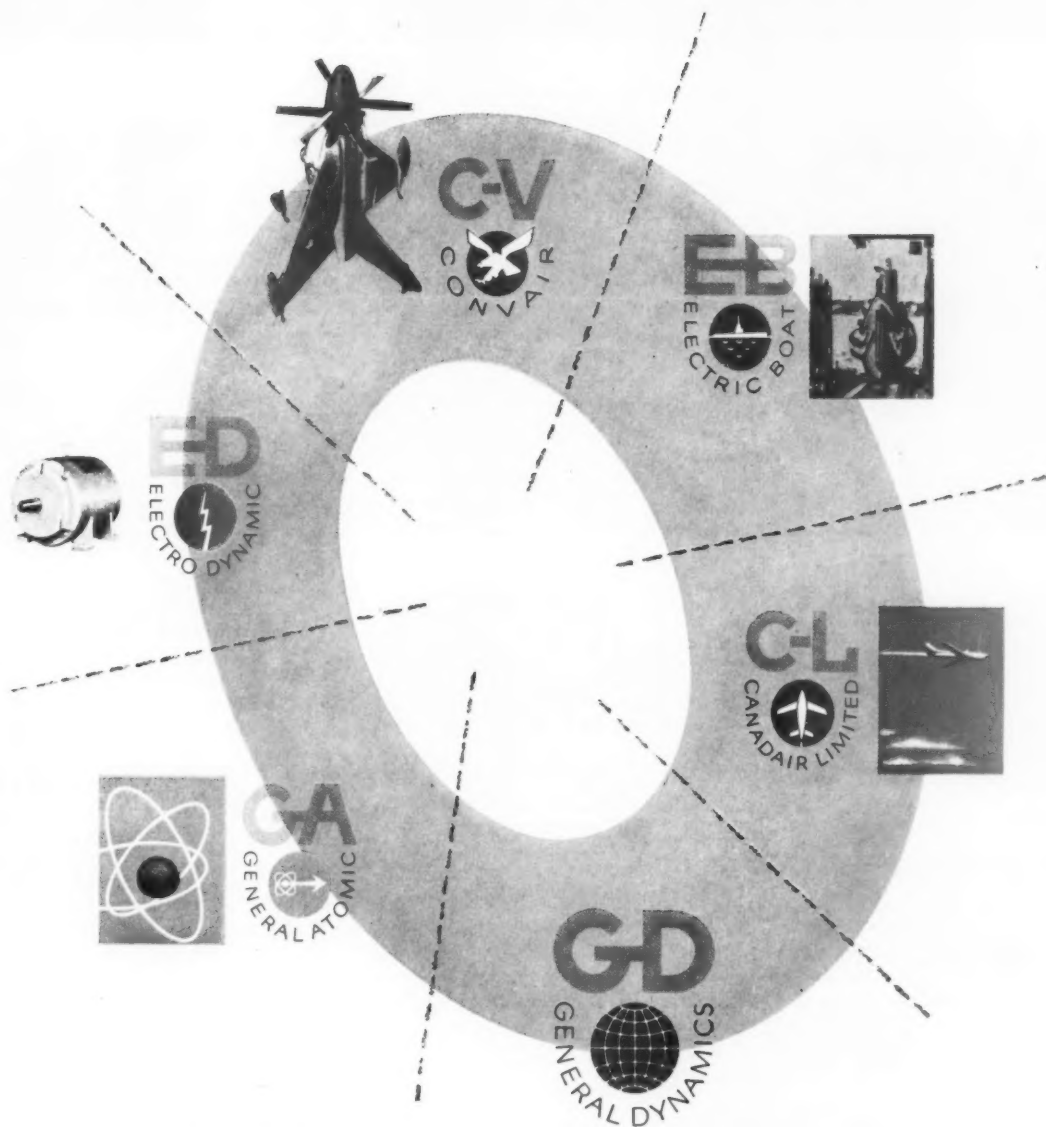
try is  
pulp-  
about  
se the

or who  
ce the  
nicely.  
ell in  
hand-  
ear 33  
listed  
e paid  
Of all  
s had  
a over  
com-  
dends  
stries,  
helped  
ace of

r's in-  
1.5%  
y four  
have

Wall  
ts for  
They

, 1954



## dynamics for defense

This is the dual destiny of the atom...

To defend against, by the ability to deliver, massive  
atomic destruction...

To unite all men and all nations in the peace of atomic creation.

These general demands are reflected in specific needs for...

Supersonic jets and rockets... nuclear powered submarines  
and aircraft... new skills "around the reactor"...  
exploration of the frontiers of aerodynamics, hydrodynamics,  
nuclear dynamics, electrodynamics.

Since 1880, divisions of General Dynamics have pioneered the  
adaptation of new forms of energy to military and industrial uses.  
In 1954, under the group concept of "Dynamics for Defense", they  
constitute one of the world's great defensive and constructive forces.

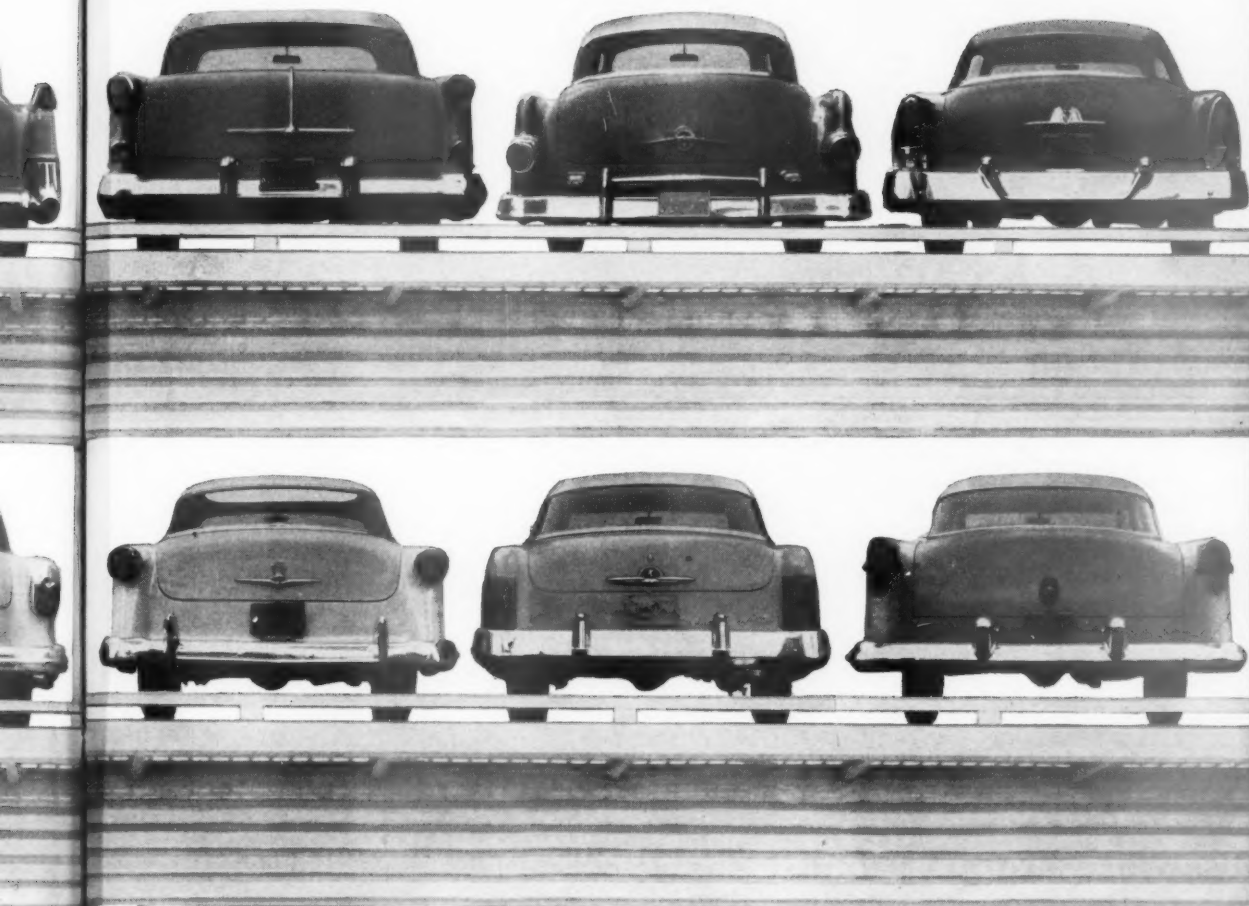
# GENERAL DYNAMICS

ATOMIC POWERED SUBMARINES • SUPersonic AIRCRAFT • GUIDED MISSILES • ELECTRIC MOTORS

GENERAL DYNAMICS CORPORATION, 445 PARK AVENUE, NEW YORK 22, N. Y.



Canadian distributor: *Crystal Glass and Plastics, Ltd., 130 Queen's Quay at Jarvis Street, Toronto, Ontario, Canada.*



## *The power to sell is molded in* **PLEXIGLAS**

Car manufacturers use PLEXIGLAS® for tail lights—and nameplates, dials, medallions, transparent roof sections—because they want the highest degree of durability and beauty. They know this acrylic plastic adds the final note of quality that attracts customers.

PLEXIGLAS does the same job for manufacturers of refrigerators, washing

machines, air conditioners, radio and television sets. It can be molded accurately into complex shapes. It gives molded parts outstanding resistance to breakage, discoloration and weather. Of all types of plastics, PLEXIGLAS is unsurpassed for attractive appearance.

You can add sales appeal to *your* product with PLEXIGLAS. We will be glad to tell you how.

*Our new brochure, "Molding Powder Product Design," will be sent to you promptly on request.*

CHEMICALS



FOR INDUSTRY

**ROHM & HAAS  
COMPANY**

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

*Representatives in principal foreign countries*





Miss West Virginia proudly shows off

## her ***New Washing Machine***

Come into the western hills of the Mountain State and see the newest thing in the "laundrying" of coal.

It's the *Williams* Preparation Plant of Pittsburgh Consolidation Coal Company, a valued customer of the Western Maryland Railway.

This *Williams* plant straddles the famous Pittsburgh Seam, a 7-foot thick layer of rich bituminous. Mine and preparation plant between them can turn out 8.5 thousand tons of clean coal a day; 2 million tons a year. And keep doing it for the next 40 years.

Miss West Virginia's washing machine gently water-washes every piece of coal; then sorts them into their commercial sizes, from 5-inch lumps down to  $\frac{3}{8}$ -inch slack.

And does it *automatically*. There are three machinery-filled acres of busy floor space in the *Williams* plant; yet the operation is so completely automatic that five men run it. Just five men on any one shift!

That doesn't count, of course, the Western Maryland crews who bring in and haul out trainloads of cars that carry Pitt Consol's Mountaineer brand coal from this plant to waiting markets.

The WM hustles the coal to public utilities, manufacturers, and home heating customers in the East, the Great Lakes area, Canada; and overseas via the road's Port Covington Terminal in the Port of Baltimore.

Are you interested in coal as a user? A buyer? Or are you hunting industrial opportunities in this rich Coal-Bin of America? There are many ways we might serve you. Do you want prompt action? Phone our nearest office. There's a coal expert there, ready to help you.

## **WESTERN MARYLAND RAILWAY**

St. Paul Place, Baltimore 2, Md.

*Short Cut for Fast Freight*



figure that Champion Paper & Fibre should earn around \$4.25 a common share for the fiscal year ending next Mar. 30, compared with \$4.13 in the preceding period. Crown Zellerbach, with a fiscal year ending Apr. 30, is expected to rise to \$4 from the earlier \$3.48. Kimberly Clark, also with a fiscal year ending Apr. 30, should earn around \$3 on its present capitalization, up from \$2.62, adjusting for its 2-for-1 stock split.

For companies using the calendar year, these gains are predicted: Container Corp., \$6.25 instead of \$3.94; St. Regis Paper, \$3 instead of \$2.91; Scott Paper, \$4.25 instead of \$3.60;

Union Bag & Paper, \$6.25 instead of \$5.58. A slight gain is seen for Gaylord Container, which earned \$2.89 last year.

The prophets see a seamier side for some other companies. They think Robert Gair will net around \$2.50 on its common stock, compared with \$2.96 a year ago; Great Northern Paper, in the middle of an expansion program, may drop a bit below last year's \$4.63. International Paper is likely to net over \$6 a share, but may not reach last year's \$6.44. West Virginia Paper & Pulp, whose fiscal year ends Oct. 31, is expected to net around \$2.75, down from \$2.83.

## An Ill Wind for Insurance

**Hurricane Carol will cost the underwriters \$100-million in claims, though it may boost sales later.**

High winds were blowing through insurance offices this week as the adjusters settled down to handle the advance guard of the 200,000 claims for windstorm damage that are expected to result from Hurricane Carol. Before they get through, the insurance people figure, they will have processed \$100-million in claims for windstorm damage alone from the gale that wrecked sections of New Jersey, Long Island, and New England.

The figure is only a fraction of Carol's full damage. Hurricane clauses cover only the damage to homes and other buildings carrying the special "extended coverage" clause on their regular fire policies. The \$100-million estimate takes no account of damage to boats of all sorts, to automobiles, to uninsured buildings, trees and shrubbery, highways, bridges, docks, utilities, and telephone lines. All in all, the insurance men's estimate is that the damage may top \$500-million.

These estimates of windstorm claims were prepared jointly by the New England Fire Insurance Rating Assn., representing the stock companies, and the Mutual Fire Insurance Assn. of New England. The industry expects claims of \$55-million just from eastern Massachusetts, the area most heavily hit by Carol's up-to-100-mph. winds. The region is expected to turn in 150,000 claims.

There's another sizable sum that doesn't appear in the \$100-million estimate. It does not include the first \$50 of damage to insured buildings in any of the New England states except Maine; in all these states the extended coverage includes a \$50 deductible clause.

With or without the \$50 deductions, the loss will be long remembered

glumly by the insurance companies. As a group, they will be recording in red ink their extended coverage activities for 1954. Total premiums paid for extended coverage in New England, New York, and New Jersey run about \$93.8-million annually, according to The Spectator, a trade publication. It requires no electronic computer to see that this won't pay off claims of \$100-million.

What's more, the claims for Carol are by all odds the largest ever filed. That's proved even though the actual damage was not so great as that reflected by the hurricanes of 1938 and 1944, or in the big blow—not technically a hurricane—that hit the northeast in 1950. The greater increased claims are due to the increased popularity of windstorm coverage, and because in the past 10 years inflation has greatly boosted the dollar value of property.

The 1938 storm, which flattened whole sections of the Long Island shore and is rated as the toughest ever to hit this area, brought only \$10-million in claims.

The rise in claims illuminates one bright side of the windstorm situation for the insurance companies. The claims after a storm may be huge, but they always bring a sharp increase in the popularity of the policies. The companies are sure to get increased business, as swarms of property owners with too little coverage or none at all, survey their damage and decide to lock the barn.

Hurricane Carol and her evil works have brought to light some little known facts about extended coverage policies:

- If food in a freezer is spoiled because a power line was knocked down on the policy holder's property, his loss is covered. But if the break was

## KOHLER ELECTRIC PLANTS



**MODEL 1.5M25**, 1500 watts, 115 volt AC, Manual start. Also 115 volt DC. Other sizes 500 watts to 30 KW.

## Power anywhere, any time Portable and Mobile

Take your own electricity wherever the work is—and finish jobs faster. Low-cost portable models for chain saws, drills,



hedge and tree trimmers, carpenters' power saws, sanders, pipe threaders and cutters, public address systems, electro magnets, fire and repair truck equipment. Also provide light and power for hunting and fishing lodges, camps, trailers, concession trucks, excavators, draglines.

### AUTOMATIC STAND-BY

A single failure of central station power may cause losses greater than the cost of protection by a Kohler automatic stand-by plant. Models for homes, farms, hatcheries, greenhouses, hospitals, schools, stores, fire alarms, communication systems, airports.

### SOLE SUPPLY

Models for ranches, motor courts, oil drilling rigs, pipelines, lumber camps, tunnels, work boats, fishing vessels.

Write for folder 18-P

Kohler Co., Kohler, Wis. Established 1873

## KOHLER OF KOHLER

PLUMBING FIXTURES • HEATING EQUIPMENT  
ELECTRIC PLANTS • AIR-COOLED ENGINES  
PRECISION CONTROLS



## **PAYLOADER** Tractor-Shovels are profit-makers

FOR CITIES, UTILITIES,  
CONTRACTORS, MINES,  
INDUSTRIES, QUARRIES,  
OILFIELDS, RAILROADS,  
LOGGERS

Thousands of "PAYLOADER" tractor-shovels move millions of tons of materials daily — indoors and outdoors — for all kinds of industries, public works, utilities. There's a size for every job — ranging from this big 2 cu. yd. model down to a 12 cu. ft. size that unloads bulk from boxcars.

Are you still handling bulk materials by slow, laborious, out-moded methods? Better have your "PAYLOADER" Distributor study your conditions and show what a "PAYLOADER" will do for you. The Frank G. Hough Co., 700 Sunnyside Ave., Libertyville, Ill.



*you should know*

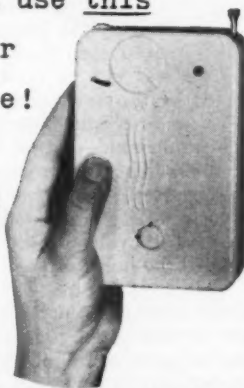
**INDUSTRIAL COLORADO**  
manufacturing is the  
second largest industry

**SITE FACTS:**  
Write for Free  
36-Page Analysis  
"Industrial Colorado"

Colorado Department of Development  
2 State Capitol  
Denver 2, Colo.

**COLORADO CLIMATE...THE MAGIC INGREDIENT**

You can use this  
recorder  
anywhere!



Minifon works unseen — in your pocket! Clearly records your words — or those of others — for up to 2½ hours at a time. Takes dictation, notes, on-the-spot interviews, speeches, meeting memoranda. Eliminates written reports for busy executives! Recordings are fully controllable, easy to edit or erase, re-usable — and may be mailed as letters. Minifon works on battery or AC, plays back through its own headphones or any radio speaker, has playback control for typist. Write for information.

**minifon**

world's only **POCKET SIZE** recorder  
GEISS-AMERICA - DEPT. 9L  
CHICAGO 45, ILLINOIS

elsewhere, even just across the street, he is not covered.

- Trees and shrubbery are not covered.

- Beach cottages whacked by tidal waves are not covered. Extended coverage includes "one-storm damage or rain-driven water," but not high waters that cause a second round of damage in the wake of the storm. Thus the policy holder is covered for damage done by rain that has come into his house via a hole in the roof blown by the storm. But if half an hour later a tidal wave flattens the whole building, he has no claim.

## **FINANCE BRIEFS**

Earnings of the class 1 rails for July came to only \$49-million, 32% less than last year's \$72-million. That was worse than June, when profits slid off only 26%. Earnings through July, the Assn. of American Railroads reported, dropped to \$272-million, 44% under a year ago.

Hilton Hotels Corp. may not keep actual title to the 10 hotels (nine operating, one under construction) it bought for \$76-million from the Statler interests (BW-Aug. 7 '54, p31). Sell-lease back deals on all are now being negotiated; included are some life insurance companies.

Secondary offerings moved three large blocks of prominent common stocks, worth \$22.8-million, last week. An estate sold 100,000 shares of Standard Oil (N. J.) for \$9.5-million; Atlas Corp. sold 280,000 shares of Atlantic Refining for \$9.3-million; several big holders disposed of 95,000 Pillsbury Mills shares for some \$4-million.

Chicago Corp., big oil and gas unit, has negotiated a \$52-million, 10-year serial loan with a commercial bank group. Virtually all proceeds will be used to retire presently outstanding short- and long-term debt.

Dividends mixed: A quick count for August shows 38 companies with publicly owned stocks either hiked their regular dividend or paid extras. Against this, 12 cut dividends, another 14 suspended them.

Stock trading, which moved more than 56.9-million shares on the New York Stock Exchange, last month made August: (1) the Big Board's busiest month since January, 1951; (2) its biggest August since 1932. In the first eight months trading volume was 347.6-million shares, 45% higher than last year.

street,  
are not  
by tidal  
ed cov-  
age or  
waters  
damage  
us the  
damage  
into his  
own by  
ur later  
e build-

or July  
% less  
at was  
its slid  
h July,  
ads re-  
a, 44%

t keep  
e oper-  
on) it  
Statler  
Sell-  
y being  
e life

ee large  
stocks,  
k. An  
standard  
s Corp.  
Refin-  
holders  
Mills

nit, has  
r serial  
group.  
used to  
rt- and

unt for  
ch pub-  
d their  
Against  
14 sus-

re than  
y York  
made  
busiest  
(2) its  
he first  
e was  
er than

11, 1954



*"You see Powell Valves everywhere! And with . . .*

*. . . good reason! They're famous for dependability. Economical, too.  
What's more, Powell has a complete line."*

## Just name the valve needed...

. . . POWELL CAN SUPPLY IT! Small wonder—since Powell probably makes more kinds of valves and has solved more valve problems than any other organization in the world.

Available through distributors in principal cities. In bronze, iron, steel and corrosion resistant alloys.  $\frac{1}{8}$ " to 30" and 125 pounds to 2500 pounds W.S.P. On problems, write direct to The Wm. Powell Company, Cincinnati 22, Ohio.



CONTROLS FOR THE LIFE LINES OF INDUSTRY

# Powell Valves

*108th  
year*





Communist China (red) is luring Indonesia (shade) into its orbit as Southeast Asia conference (Asian members in black) meets in Manila to form a mutual defense pact.



## Indonesia: Drifting Toward R

There were four empty seats at the Southeast Asia conference table in Manila this week—India, Burma, Ceylon, and Indonesia.

All four countries are missed, but Indonesia's absence is the hardest for the U.S. to take. Only five years ago the U.S. went to bat for the Indonesians against our North Atlantic partner, the Netherlands. Through the U.N., the U.S. forced agreement on a transfer of the fabulously wealthy Netherlands East Indies from Dutch sovereignty to the "United States of Indonesia." The Indonesians expressed gratitude for U.S. help.

• **Leaning to Reds**—Now Indonesia has not only refused to attend the Manila gathering that we are backing but is even talking up Communist China's

proposal for a system of nonaggression pacts in Southeast and South Asia. Such a pact, uniting the non-Communist countries of this area with Peking, would give the Communists just the opening they want to undermine the independence and security of these countries.

If Indonesia were to swing over to the Communist side, the West would suffer an even worse blow than the defeat in Indo-China. Indonesia is the treasure house of Asia. It has rubber, oil, tin, sugar, vegetable and palm oils, and the sixth largest population in the world.

Japan marched south in 1941 chiefly to add Indonesia's oil and other raw materials to its industrial resources. Communist China needs these basic

materials just as badly as Japan did if the Mao regime is to achieve its industrialization plans (BW—Jul. 24 '54, p92).

### I. Why the Change?

What has happened in five years to carry Indonesia from pro-Western "neutrality" to "neutralism" with a list to the left?

Since 1949, Indonesia has been through one political crisis after another. Four short-term governments have fallen. Today the country is governed by a shaky coalition of the Nationalist Party and small splinter groups. To stay in power, this coalition leans heavily on the support of the Communists.





## ard Red China

n did  
ve its  
Jul.24

ears to  
estern  
with a

been  
er an-  
ments  
is gov-  
of the  
plinter  
alition  
of the

1, 1954

• **Unbalance of Power**—Indonesia's parliament is a strange conglomeration of appointed politicians. They were put in office while the Indonesians were fighting the Dutch for independence, and no election has ever been held.

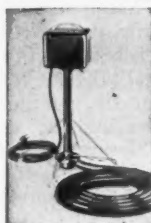
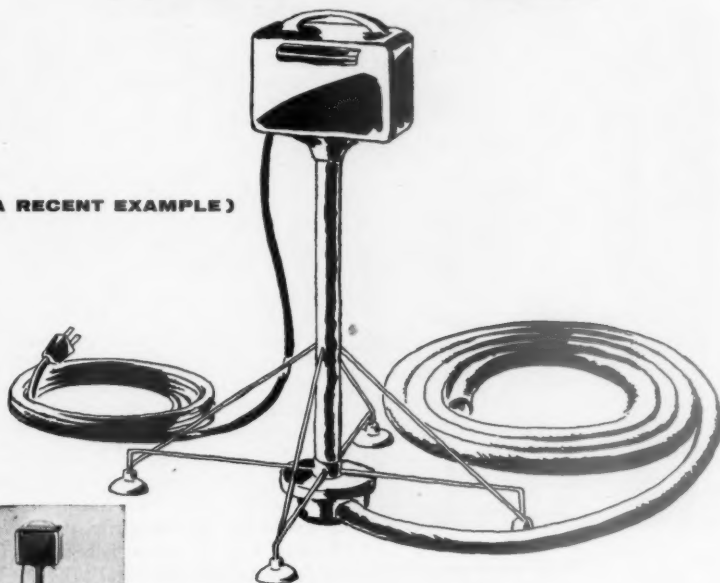
Originally the parliament was intended to represent all factions, but today it falls down badly on this score. The party that's by all odds the largest in the country—the Masjumi or United Moslem Party—holds only 38 of the parliament's 212 seats. The Communists and fellow travelers, who represent only a fraction of the Indonesian people, have more than 50 seats.

• **Leaders**—The Premier is the Nationalist Party leader, Ali Sastroamidjojo, who was Indonesia's ambassador in the

# WILL YOU BE FIRST

*to make another profitable new use of*  
**DUREZ PHENOLICS?**

(A RECENT EXAMPLE)



A new competitive edge in your business, a wider market for your product, may well be awaiting an original use of Durez phenolics. As molding compounds or processing resins, these plastics are putting greater sales appeal into new or redesigned products almost every day.

This is what happened when the manufacturer of a versatile new portable sump pump for the mass market decided on a molded motor housing, pump housing, and handle. The Durez material helps to hold the pump weight down to less than five pounds. It re-

sists the attack of moisture and electrolytic action, and withstands rugged handling. It also has the attractive glossy natural finish so familiar in radio and TV housings and other household articles molded of Durez.

Almost unbreakable, highly resistant to heat, impact, electrical current, chemicals, and moisture, Durez materials can help you turn the challenge of these changing times to profit. Experienced molders in your area are ready to serve you. We will gladly cooperate with our long experience as phenolics specialists... Write Durez Plastics & Chemicals, Inc., 4009 Walck Road, N. Tonawanda, N. Y.



**MOLDING COMPOUNDS**  
Structural, electrical, and chemical properties in many combinations.

**RESINS FOR INDUSTRY**  
Bonding, casting, coating, laminating, impregnating, and shell molding.



**PHENOLIC PLASTICS for the new Competitive Era**



Communist China (red) is luring Indonesia (shade) into its orbit as Southeast Asia conference (Asian members in black) meets in Manila to form a mutual defense pact.



## Indonesia: Drifting Toward

There were four empty seats at the Southeast Asia conference table in Manila this week—India, Burma, Ceylon, and Indonesia.

All four countries are missed, but Indonesia's absence is the hardest for the U.S. to take. Only five years ago the U.S. went to bat for the Indonesians against our North Atlantic partner, the Netherlands. Through the U.N., the U.S. forced agreement on a transfer of the fabulously wealthy Netherlands East Indies from Dutch sovereignty to the "United States of Indonesia." The Indonesians expressed gratitude for U.S. help.

• **Leaning to Reds**—Now Indonesia has not only refused to attend the Manila gathering that we are backing but is even talking up Communist China's

proposal for a system of nonaggression pacts in Southeast and South Asia. Such a pact, uniting the non-Communist countries of this area with Peking, would give the Communists just the opening they want to undermine the independence and security of these countries.

If Indonesia were to swing over to the Communist side, the West would suffer an even worse blow than the defeat in Indo-China. Indonesia is the treasure house of Asia. It has rubber, oil, tin, sugar, vegetable and palm oils, and the sixth largest population in the world.

Japan marched south in 1941 chiefly to add Indonesia's oil and other raw materials to its industrial resources. Communist China needs these basic

materials just as badly as Japan did if the Mao regime is to achieve its industrialization plans (BW—Jul. 24 '54, p92).

### I. Why the Change?

What has happened in five years to carry Indonesia from pro-Western "neutrality" to "neutralism" with a list to the left?

Since 1949, Indonesia has been through one political crisis after another. Four short-term governments have fallen. Today the country is governed by a shaky coalition of the Nationalist Party and small splinter groups. To stay in power, this coalition leans heavily on the support of the Communists.



## ard Red China

an did  
ve its  
-Jul.24

ears to  
Western  
with a

been  
ter an-  
ments  
is gov-  
of the  
splinter  
alition  
of the

1, 1954

• **Unbalance of Power**—Indonesia's parliament is a strange conglomeration of appointed politicians. They were put in office while the Indonesians were fighting the Dutch for independence, and no election has ever been held.

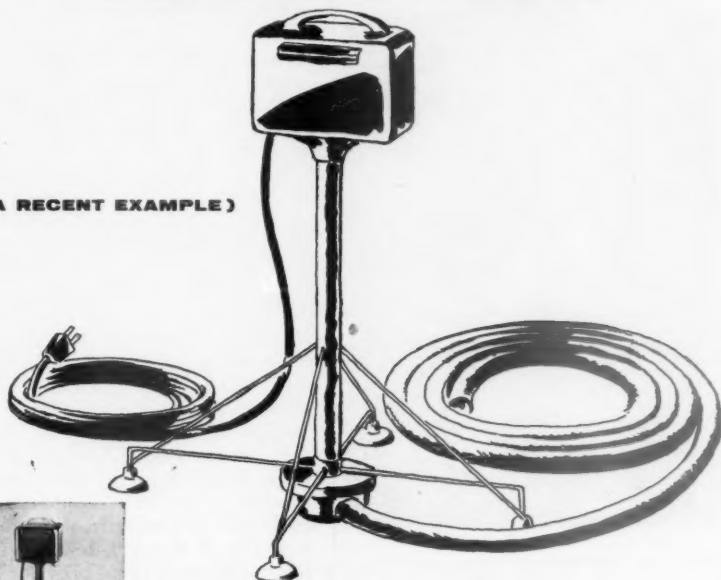
Originally the parliament was intended to represent all factions, but today it falls down badly on this score. The party that's by all odds the largest in the country—the Masjumi or United Moslem Party—holds only 38 of the parliament's 212 seats. The Communists and fellow travelers, who represent only a fraction of the Indonesian people, have more than 50 seats.

• **Leaders**—The Premier is the Nationalist Party leader, Ali Sastroamidjojo, who was Indonesia's ambassador in the

# WILL YOU BE FIRST

*to make another profitable new use of*  
**DUREZ PHENOLICS?**

(A RECENT EXAMPLE)



A new competitive edge in your business, a wider market for your product, may well be awaiting an original use of Durez phenolics. As molding compounds or processing resins, these plastics are putting greater sales appeal into new or redesigned products almost every day.

This is what happened when the manufacturer of a versatile new portable sump pump for the mass market decided on a molded motor housing, pump housing, and handle. The Durez material helps to hold the pump weight down to less than five pounds. It re-

sists the attack of moisture and electrolytic action, and withstands rugged handling. It also has the attractive glossy natural finish so familiar in radio and TV housings and other household articles molded of Durez.

Almost unbreakable, highly resistant to heat, impact, electrical current, chemicals, and moisture, Durez materials can help you turn the challenge of these changing times to profit. Experienced molders in your area are ready to serve you. We will gladly cooperate with our long experience as phenolics specialists... Write Durez Plastics & Chemicals, Inc., 4009 Walck Road, N. Tonawanda, N. Y.



**MOLDING COMPOUNDS**  
Structural, electrical, and chemical properties in many combinations.

**RESINS FOR INDUSTRY**  
Bonding, casting, coating, laminating, impregnating, and shell molding.



**PHENOLIC PLASTICS for the new Competitive Era**



## Royal sectional furniture

Beauty and comfort combined for use in varying arrangements, versatile Royal is America's best-known lounge furniture. Write for literature.

executive offices • reception rooms • employee lounges

**Royal Metal Mfg. Co.**

173 N. Michigan Ave., Chicago 1, Dept. 49  
Your only single source for over 130 metal furniture items



METAL FURNITURE SINCE '37

Every User Of

**MORRISON**  
PLAN FOR CAR LEASING

**Has Shown  
An Immediate Profit  
From the Transaction**

The MORRISON PLAN enables railroads and industrials to secure needed rolling stock at less than per diem charges—without any capital investment.

A Service of

**INTERNATIONAL RAILWAY CAR CO.**

Rand Building, Buffalo, N. Y.

U.S. until mid-1953. In forming his government, Ali kicked out both the Masjumi and the pro-Western Socialists who had been in all previous governments. He put fellow travelers into enough cabinet posts to win Communist support and thus get a sure majority in parliament.

Premier Ali is no Communist himself, nor even a fellow traveler. Neither is his friend Pres. Soekarno, founder of the Nationalist Party.

• **But No Program**—The trouble is the Nationalists got caught in 1949 with nothing but their independence banners to wave. They had been too busy fighting for freedom from the Dutch to work up any constructive program.

As a result, they have failed to keep their promises of a better life for the average Indonesian. Now they must accept and adopt Communist slogans or watch their following go over to the Communist (PKI) Party.

One reason why Ali has gone into virtual coalition with the Communists is his fear of forthcoming national elections. The country's first, they will show just what the popularity of the various parties really is.

Indonesia is 90% Moslem and more than 75% illiterate. As the principal Moslem party, the Masjumi probably could roll up a majority, if the elections were free. It is especially strong in rural areas, where the local religious leaders are all-powerful. But the government controls the election and no doubt will cut down the Masjumi vote.

To keep Communist support, the Ali government is making pro-Communist compromises on all sides. The Minister of Defense, for example, is Iwa Kusumasumantri. Iwa is an old revolutionary, a former Moscow resident. He took part in an attempted revolt against the Indonesian Republic even before it received international recognition in 1949.

The Communists have been able to purge pro-Western Socialist army officers who took part in anti-Communist demonstrations in the capital late in 1952. Army commanders in the various military districts are now pledged to personal loyalty to Pres. Soekarno. But Iwa has installed in strategic positions many young officers who are loyal to the Communists.

## II. Communist Tactics

While this kind of maneuvering goes on within the government, the Communists are busy building up a "mass base."

Today the Communist PKI is in complete control of SOBSI, the nation's most powerful labor union federation, and of SARBUPRI, the well organized union of rubber, tea,

sugar, and copra estate workers—the nearest thing to an industrial "proletariat" in Indonesia. One of the remarkable things about the Communist party is how fast a comeback it has made since 1948, when it unsuccessfully attempted to overthrow the Indonesian government of Premier Mohammed Hatta and Pres. Soekarno.

The Communists seem to have unlimited funds. Indonesians believe they come from the local Chinese Communist embassy, which opened in 1950. It is also considered probable that Indonesia's 3-million Chinese, who dominate the retail trade of the country, have to ante up for the Communist kitty.

• **Standard Procedure**—The Communist tactics have been simple: Agitate; criticize the government for all that ails the country; wherever possible, blame Indonesia's misfortunes on the "imperialists"—the Dutch and the Americans. Since many of Indonesia's present problems are an inheritance from colonial days, this kind of attack goes across.

Wherever possible, too, the Communists try to pin the "imperialist" label on their Indonesian opponents. Soetan Sjahrir, twice premier of the republic before international recognition, is a prime target. He leads the Socialists and is a violent anti-Communist.

The Communists are also trying to splinter the Masjumi between its Western-educated, pro-democratic wing and its anti-foreign right wing. Right-wing Moslem terrorists, who want a theocratic state in Indonesia, already control large areas in five different sections of the country. By demanding armed suppression of these movements, instead of conciliation as the Masjumi wants, the Communists hope to create more chaos.

## III. Going on the Reefs

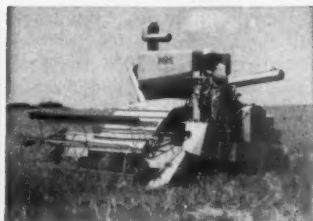
In the peculiar way Indonesians seem to have for postponing unpleasant decisions, this whole situation might drift slowly along were it not for a deepening economic crisis in the country.

In 1949, Indonesia emerged from four years of warfare against the Dutch with the world crying for its products. Then came Korea and a boom for the rubber, tin, and palm oils it exports. Banking on a long conflict in the Far East, in 1950 the Indonesians refused a U.S. offer of guaranteed long-term commodity prices.

As the Korean war dragged on, prices fell, and the Indonesians realized they had made a mistake. Since then, export revenues have dwindled further. The loss has hampered the Indonesian government in trying to reestablish an economy that had been devastated by



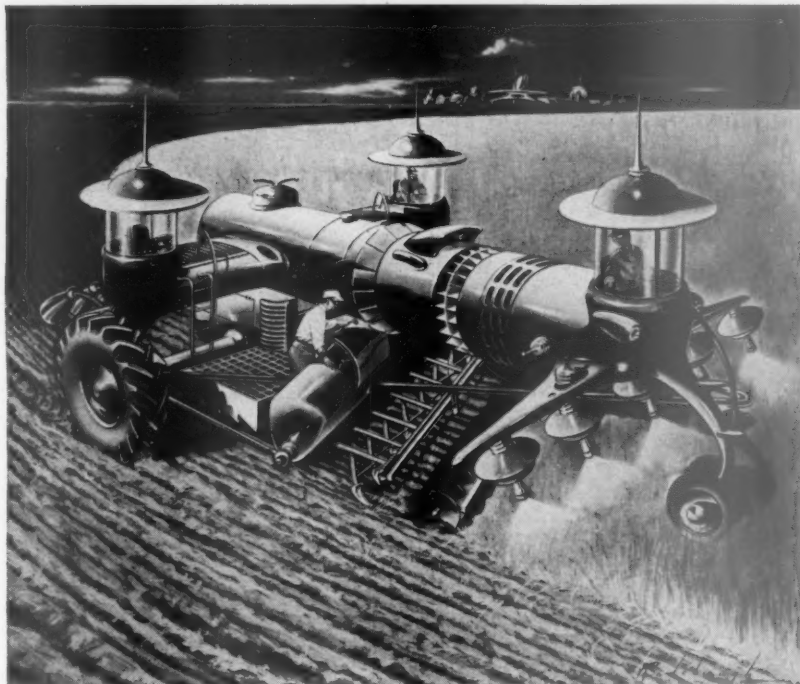
# FARMING



**Versatile Minneapolis-Moline Uni-Tractor** becomes a self-propelled harvester, picker, husker, forage chopper or windrower. National seals are used extensively to protect engine, transmission and wheel assemblies.



**Farmall Cub**, International Harvester's popular light weight tractor, runs smoother, needs less servicing because of extensive use of National Oil Seals. In addition to many farm uses, tractor also doubles as power lawn mower.



## Future implements: "everything but think"

Imagine a single machine that breaks and conditions the soil, furrows, plants, fertilizes, even applies a long-lasting insecticide. This is "once over tillage," perhaps soon a reality as farm machinery becomes still more able, versatile and automatic.

Implement designers are hard at work to make farming simpler, less time-consuming and more productive. And in addition to better performance and more varied capabilities, new implements have more dependability and longer service life. One reason for this is the increased use of oil seals to protect bearings and assemblies. Implement designers are thoroughly familiar with the job oil seals do—keeping lubricants and fluids in place, dirt and water out.

Over three decades ago National pioneered oil seals. Since then we've made millions of seals for farm implements, earth-moving and railway equipment, machinery and appliances—plus hundreds of millions for America's motor vehicle fleet. Today we can offer you over 2,500 different standard-design oil seals, or can manufacture special seals for special problems.

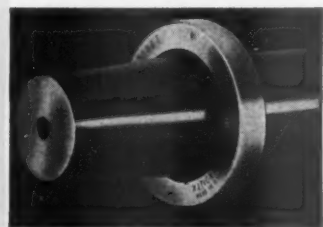
**NATIONAL**  
OIL & GREASE SEALS  
O-RINGS SHIMS

Original equipment on cars, trucks, buses, tractors, agricultural and earth-moving equipment, railway rolling stock, machinery and appliances.

### NATIONAL MOTOR BEARING CO., INC.

General Offices: Redwood City, California. Sales Offices: Chicago, Cleveland, Dallas, Detroit, Downey (Los Angeles County), Milwaukee, Newark, Van Wert, Wichita. Plants: Redwood City, Downey and Long Beach, California; Van Wert, Ohio. Products: Syntech® and Leather, Oil, Fluid and Grease Seals, O-Rings, Airtron® Ducts, Silicone parts, Shims.

2054



**Oil seals "seal"** with a steel-encased leather or synthetic rubber sealing member that fits accurately around shaft; keeps oil or grease in, dirt and water out. Fit must be perfect.

## AUTO SERVICING



**Automobile wheels** run on ball and roller bearings too, with grease seals to retain lubricant, exclude dirt and water. For motoring safety and longer bearing life, auto makers recommend repacking front wheels with fresh grease regularly and before your vacation trip; installing new seals to keep grease clean and where it belongs.

s—the  
"pro-  
f the  
Com-  
eback  
en it  
over-  
nt of  
Pres.

have  
believe  
Com-  
1950.  
Indo-  
domi-  
have  
tty.  
mmu-  
gitate;  
that  
ssible,  
n the  
the  
nesia's  
tance  
attack

Com-  
alist?"  
ents.  
f the  
cogni-  
s the  
Com-

ng to  
its  
wing  
Right-  
ant a  
ready  
t sec-  
nding  
ments,  
sumi  
create

seem  
decid-  
drift  
ening

from  
Dutch  
ducts.  
r the  
ports.  
e Far  
fused  
term

on,  
alized  
then,  
rther.  
esian  
h an  
ed by



*The letterhead paper you'll find  
in offices where decisions count*

Men who contribute to our way of doing things, present and future, know the importance of selecting the proper letterhead to represent them. That's why thousands of progressive firms choose Cockletone Bond. Executives prefer its sturdy feel . . . its lively crackle . . . the rich shade of pure white.

The moderate cost of Cockletone Bond will surprise you. Why not investigate the advantages of appointing this outstanding letterhead paper as your business representative?



You can obtain business printing on Hammermill papers wherever you see this shield on a printer's window. Let the Guild sign be your guide to printing satisfaction.

**SEND THIS COUPON** for the FREE *Cockletone Bond* Portfolio. It contains a wide assortment of good, modern letterhead designs. You'll find it helpful in improving or redesigning your present letterhead. We will also include a sample book of *Cockletone Bond*. Hammermill Paper Company, 1455 East Lake Road, Erie 6, Pennsylvania.

Name \_\_\_\_\_



Position \_\_\_\_\_

(Please write on, or attach to, your business letterhead.)

BW-9-11

LOOK FOR THE *Cockletone* WATERMARK

the Japanese occupation and the war of independence.

This summer, the State Bank warned that a program of austerity must be undertaken. Parliament had to vote to lower the minimum legal reserve of gold and foreign currencies for the country's currency from 20% to 15%. This reserve had been 36% only a year ago.

• **Inflation**—The Japanese occupation, plus the war against the Dutch, created disastrous inflation in Indonesia. Retail prices in Djakarta today are more than 25 times prewar levels.

Inflation has been aggravated by a system of granting import licenses on a preferential basis to Indonesian nationals rather than to the "big five" Dutch firms or to the local Chinese. This policy is meant to establish an Indonesian business community. But it has involved inflationary government loans to businesses that have no real assets.

Foreign capital might have helped solve this problem. But Indonesia has no law protecting the rights of foreign capital, so foreigners have been reluctant to invest.

• **Oil Skids**—This has handicapped Indonesia's petroleum industry, one of the country's great assets. California-Texas, Standard-Vacuum, and BPM (a Dutch affiliate of Shell) all had concessions under the prewar government. They have been able to restore all the prewar installations of the companies—except one BPM refinery in North Sumatra. But the government has granted no new concessions. Therefore, the companies put only enough money into Indonesia to operate prewar fields. Meanwhile, Indonesia is losing one of its biggest natural markets—Australia—to Middle East oil producers.

Despite this, crude oil production is four times prewar and brings in more foreign exchange than any other product, except rubber. Without the receipts from oil, Indonesia would be badly in the red on its foreign payments. Given a real chance, the oil industry could earn a much-needed surplus of foreign exchange for the country.

• **Trade Balances**—The Korean War boom gave Indonesia a big surplus in 1951. Exports that year were \$1.3-billion, compared with \$800-million the previous year. This allowed Indonesia to double its imports and still add a sizable amount to its reserves of gold and foreign exchange.

In 1953, however, exports fell to \$820-million. This was not enough to cover imports plus other payments Indonesia had to make. It had to dig into its reserves, which dropped from \$511-million in 1951 to \$212-million last year. Today reserves are about \$150-

## The simple, scientific way to office quiet!

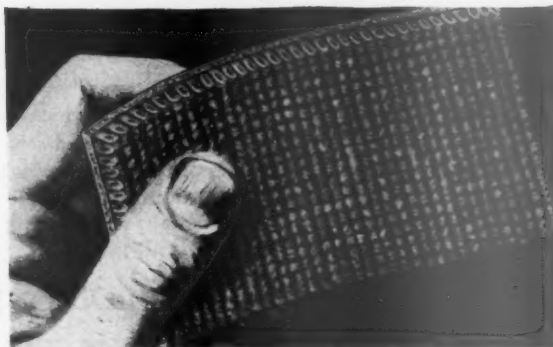


### Bigelow's Cushionlok\* carpet absorbs up to 90% of floor noise... deadens echoed sound, too!

You'll be amazed to see how quiet your office can be with Bigelow Cushionlok Carpet. This handsome, durable acoustical carpet has such a high sound-absorption coefficient that usually no further acoustical treatment is necessary.

Cushionlok can be installed easily without disrupting your normal office schedule. It can be laid on any type floor. It can be cut, pieced and re-laid at any future date. Cushionlok has its own cushion lining built into the carpet.

**Economize on maintenance with a 73% saving!** Figures show the estimated costs for maintaining hard-surface floor coverings to be about 60¢ per sq. ft. annually. You can keep Cushionlok in A-1 condition for only 16¢ per sq. ft. annually and save 73%! Cushionlok can save needless expenses by preventing slippery-floor accidents, too!



Send for your sample of Cushionlok, today. Once you see it, you'll agree that it's the most practical carpet for use in stores, showrooms, offices, hotels—any place where there's noise and traffic. Write on your business stationery to Dept. A, 140 Madison Avenue, New York 16, New York.

\*REG. U. S. PAT. OFF.

## Bigelow Cushionlok Carpet

For Better Acoustics

war  
earned  
st be  
vote  
ve of  
the  
15%.  
year  
ation,  
eated  
Retail  
than  
by a  
on a  
ation-  
Dutch  
This  
Indo-  
ut it  
ment  
o real  
elped  
nesia  
ts of  
been  
d In-  
of the  
Texas,  
Dutch  
ssions  
They  
pre-  
mies—  
North  
has  
There-  
ough  
e pre-  
sia is  
mar-  
pro-  
ion is  
more  
prod-  
the  
ld be  
pay-  
e oil  
ceded  
the  
War  
us in  
3-bil-  
n the  
nesia  
add a  
gold  
ll to  
gh to  
ts In-  
y into  
\$511-  
a last  
\$150-  
1954



When you're looking  
for a material that  
reduces **NOISE...**

**micarta** is basic!

MICARTA's resilient structure "shushes" noise because it "soaks up" impact and vibration. MICARTA offers high compressive and flexural strength, too. It repels moisture . . . fights corrosion . . . endures heat and cold . . . wears slowly, evenly. How can this amazing material, that does so many jobs better than metal, serve you? Use the coupon for the complete story.

J-06582

YOU CAN BE **SURE**...IF IT'S **Westinghouse**



In aviation for example  
MICARTA is serving in applica-  
tions like pulleys, structural  
members and landing gear  
bushings.



Westinghouse Electric Corporation, Trafford, Pa.  
MICARTA Division, Attention: L. A. Pedley

Sir: (Please check one)

- ☐ Please have your representative call  
☐ Please send me complete facts  
on MICARTA

Name

Company

Address

City  Zone  State

W-9-11-54

million, and liabilities owed abroad are almost the same amount.

• **Rice**—One of the heaviest drains on foreign exchange in the postwar period has been purchases of grain abroad. Indonesia reached self-sufficiency in rice in 1940. But since then it has had to import grain every year. While rice production has increased each year, increases have hardly taken care of the country's annual 800,000 population growth.

Low productivity in rice is only one part of a problem that affects the whole economy. In many fields, production has not reached prewar figures, despite the fact that Indonesia has 13-million more people than it had in 1940.

#### IV. Receptive to Reds

This squeeze has made the Indonesians more anxious than ever to trade with Communist China.

Last fall, a bilateral trade treaty between the two countries was signed, naming almost every commodity that either country produced. However, the final agreement announced last week is for less than \$18-million, and the whole deal is subject to Peking's final O.K.

• **At U.N. Assembly**—Indonesia is likely, however, to join any move at this month's U.N. General Assembly that's aimed at bringing Communist China back into the world trade picture. China may be able to supply cheap textiles and a few other products in exchange for Indonesia's raw materials. But Indonesia must look to the West for the machinery and other capital goods she needs to rehabilitate her economy.

Present receipts from her sales in the West are inadequate. It's doubtful, though, that the present government has the courage to discipline the economy and put the country on sounder financial footing. Unless that is done, the country is headed for further inflation and a round of strikes and violence brought on by the Communist trade unions.

• **Showdown**—If Ali's government fails, a decision must be made whether Indonesia moves more rapidly toward the Communist camp or calls a halt to Communist infiltration. The present situation cannot continue for very long in any case.

Pres. Soekarno's tremendous popularity in the country gives him something of a free hand in making the decision. But the anti-Communists are near fever pitch. There is a possibility that anti-Communist Vice-Pres. Mohammed Hatta, Soetan Sjahrir, and the Masjumi will get together to demand a united anti-Communist government and to offer Soekarno civil war as an alternative.



oad are  
ains on  
period  
abroad.  
ncy in  
has had  
ile rice  
ear, in-  
of the  
ulation

ly one  
e whole  
duction  
es, de-  
has 13-  
had in

Indo-  
o trade

aty be-  
signed,  
y that  
er, the  
week is  
whole  
O. K.  
esia is  
ove at  
sembly  
munist  
de pic-  
supply  
products  
mate-  
to the  
other  
bilitate

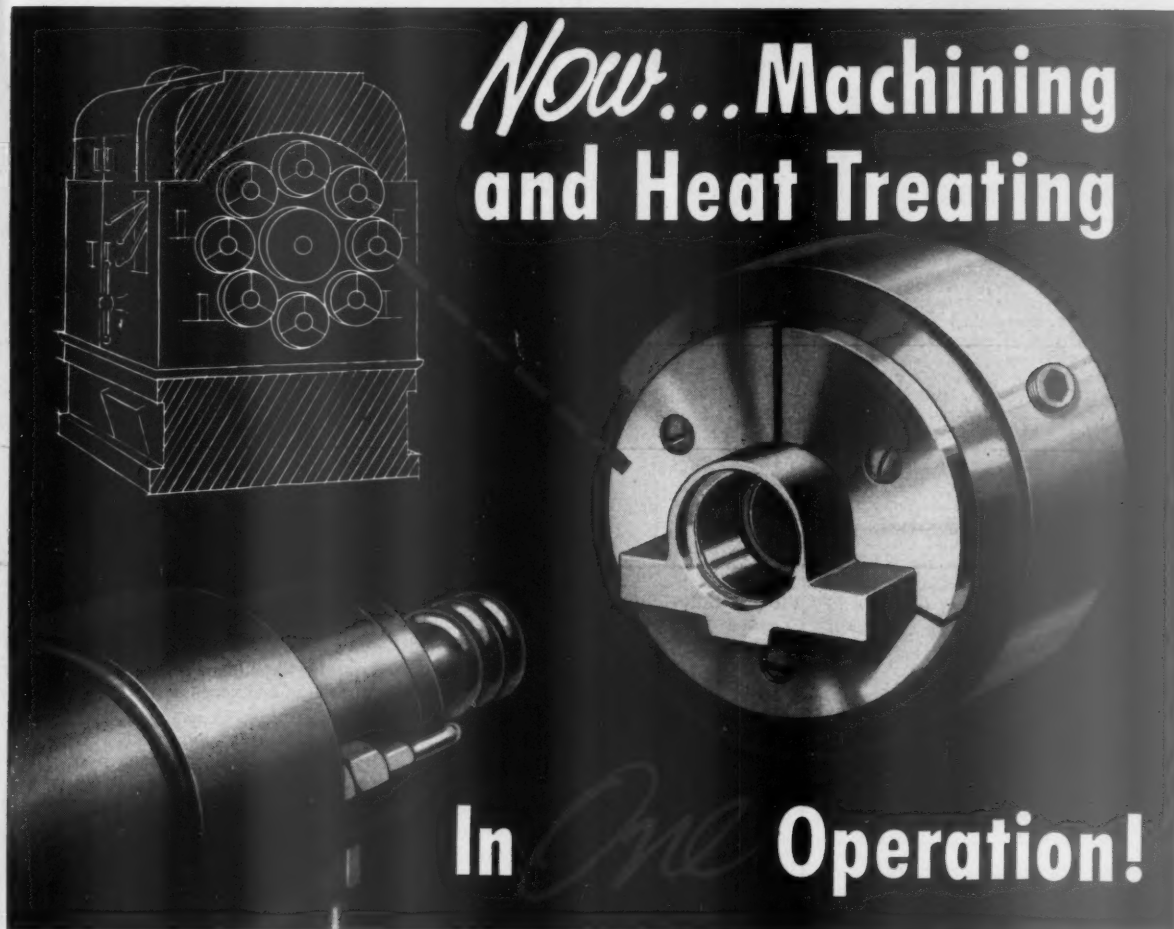
in the  
ubtful,  
nment  
econ-  
ounder  
done,  
er in-  
nd vio-  
munist

t fails,  
er In-  
ard the  
alt to  
resent  
y long

popu-  
some-  
g the  
sts are  
sibility  
Mo-  
nd the  
emand  
nment  
as an

1, 1954

# Now... Machining and Heat Treating



## with TOCCO Induction Heating

**Mechanics Universal Joint Division of Borg-Warner Corporation now combines automatic heat-treating and metal-working operations on the same machine!\***

A Tocco Inductor Coil, matched to one spindle of a multiple spindle automatic screw machine, heat treats the inside diameter of automotive trunnion cups—after they have been completely formed on the same machine tool. Twenty-two, 20 and 50 kw, 450,000 cycle TOCCOtron Induction Heating units and 44 automatic screw machines (installed here and in other plants) make up this high-speed production team.

This new method permits the use of SAE 1144 steel and eliminates costly, time-consuming copper plating and carburizing operations formerly required. Heating and quenching cycles total approximately 10 seconds per part, and production is in excess of 300 parts per hour from each machine.

If your products or their components require heat treating, soldering, brazing or forging it will pay you to investigate TOCCO for better, faster ways of producing them at lower unit cost.

\* A patented process

**THE OHIO CRANKSHAFT COMPANY**



# TOCCO

**NEW FREE  
BULLETIN**

**Mail Coupon Today**

**THE OHIO CRANKSHAFT CO.**  
Dept. W-9, Cleveland 1, Ohio  
Please send copy of "Typical Results  
of TOCCO Induction Hardening and  
Heat Treating."  
Name \_\_\_\_\_  
Position \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_



## The Moon.. or Sixpence

Our generation has been promised the moon... we'll trade our share for a bit of security right here.

That's why our Group Representative won't sell you any green-cheese real estate, even if you reach for it.

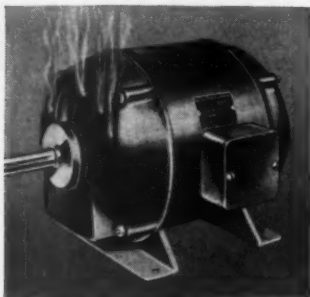
He will show you a practical Group Insurance Plan... well within the reach of your company and its employees.

He'll talk in terms of sixpence... about how to insure expenses your employees cannot meet out of income... how to eliminate frills and budgetable items... how to build a program from the ground up... through your own agent or broker.

**Zurich-American**

"Great for Group"

Zurich General Accident and Liability Insurance Company, Ltd.  
American Guarantee and Liability Insurance Company  
135 S. LA SALLE ST.  
CHICAGO 3, ILLINOIS



## stop motor burnouts!

If the circuit breaker "protecting" a motor must be over-rated to prevent nuisance stoppages in hot weather, it cannot adequately protect against motor burnouts when plant temperature drops.

More industrial plants are standardizing on Heinemann Circuit Breakers as manual motor controllers because they: (1) offer the same sure protection... without needless power stoppages... at any temperature, and require no form of temperature compensation, (2) may be rated exactly to the characteristics of the motor, and (3) provide the fastest available circuit interruption when large overloads, stalled rotors, single-phasing or short circuits occur.

Figure the cost of a single burnout in man-hours, motor replacement, production loss—and you'll see why your plant should have the dependable protection of Heinemann Circuit Breakers. Send for Bulletin 1410. HEINEMANN ELECTRIC COMPANY, 155 Plum Street, Trenton 2, New Jersey.



**HEINEMANN**

*Circuit breakers*

# Splitting FOA Orders 50-50

U. S. companies to get some of the business regardless of low bids... Canada to step up trade with Russia... GM expands in Australia... New Deal for Panama.

U. S. industry is getting a break under the new policy line that the Foreign Operations Administration adopted last week in handling a \$27-million railroad equipment order for India. Instead of giving all the business to foreign firms—the low bidders—FOA Administrator Harold E. Stassen departed from past policy. He split the order about equally between foreign companies and some U. S. firms that have been hard hit by declining domestic business.

Stassen's decision probably means that in the future a 50-50 principle will be adopted on all FOA procurements where there are U. S. bidders who need the business to maintain employment. This would give at least a part of American industry the same kind of favored position the 50-50 shipping clause has given U. S. shippers since the Marshall Plan started.

• **Outcry**—The new policy line developed this way:

FOA agreed some months ago to deliver 100 steam locomotives and 5,000 freight cars to India as part of its economic aid program (BW—Aug. 28 '54, p34). It threw the bids open to global competition. Japanese suppliers submitted the low bid on the locomotives and Belgian, British, and Japanese firms the low bids on the freight cars. The assumption was that the low bidders would get the business.

But FOA held off placing the orders for several weeks, announced that a change in policy was being considered. The agency was being barraged from all sides with pleas that the business be placed with U. S. firms, regardless of low bids. The Baldwin-Lima-Hamilton Corp. of Philadelphia, which will supply 50 of the locomotives, said that the FOA order would supply a year's work for about 1,000 men at its Eddystone (Pa.) plant. The Wilkes-Barre Chamber of Commerce and other local groups in Pennsylvania took full-page ads in Washington and New York papers urging that the work should not go to foreign workers.

• **Congress**—What really made FOA stop short was Congress, which has become increasingly critical of FOA's past procurement policy. This year Congress wrote a rider into FOA's appropriation bill that requires the agency to have special regard to distressed areas in this country.

Splitting the Indian order will add about \$7-million to the cost of FOA's rail equipment program for India. But

Stassen said in justifying the move that FOA is not a "cold mechanical bid-letting organization"—political and economic factors, he said, have to be taken into consideration, too.

## Russia-Canada Trade

Now that the controls on East-West trade have been eased up (BW—Sep. 4 '54, p214), Canada counts on doing a lot more business with the Soviet Union. Ottawa expects 1954 exports to Russia to reach \$15-million—not impressive by itself but a far cry from last year's puny sales of \$478.

Even before the change in trade rules, Soviet buying in Canada had jumped way up. During the first five months of the year it totaled \$4-million. Among the big orders were \$1.5-million worth of canned pork, \$1.4-million of cellulose, and \$800,000 of barley.

• **What Moscow Wants**—Recently the Russians have shown an increasing interest in Canadian barley. In addition, Soviet buyers are shopping for Canadian ships, freight cars, and types of fine paper that Moscow can't get from Finland. Russia's new ambassador to Ottawa, Dimitri Chvahin, seems to be heading the Soviet drive to promote more trade between the two countries.

Soviet exports to Canada, mainly raw furs, amounted to only \$625,000 last year. But Moscow is now offering sizable quantities of manganese and chrome ores and is no doubt ready to pay in gold for part of its purchases from Canada.

## GM Down Under

General Motors Corp. is putting another \$16-million into its Australian manufacturing operations. But you won't see any statistics on international capital movements to record the fact. The money is already there—earned by General Motors-Holden's Ltd., GM subsidiary Down Under, which last year chalked up the biggest profit in Australian corporate history.

GM gave the expansion announcement a big buildup. Two weeks ago, the Melbourne office of GM-Holden's revealed the record net—£A7.3-million (\$16.3-million)—with the word that the parent company in Detroit had declared itself a 100% stock dividend on its holdings in GM-Holden's, worth

# Tough, lightweight Plastic expands into shape

A handful of Koppers Expandable Polystyrene will foam into millions of small bubbles when heated. Pour some grains of this polystyrene into a mold of any shape; apply heat and the plastic will expand to fill the entire cavity. Polystyrene foam creates a tight network of small cells, all fused together to make a strong, tough mass. Products made this way are light, rigid and smooth. Then too—they float.

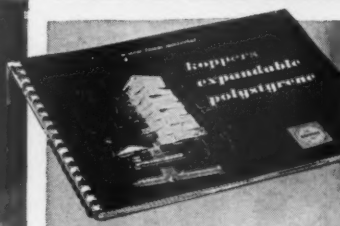
Koppers Expandable Polystyrene makes a fine insulation. The millions of tiny cells trap air and retard heat flow. This plastic *keeps* its insulating value, since it is unaffected by moisture.

Expandable polystyrene has a smooth surface that you can paint.

Koppers Expandable Polystyrene can be used in refrigerators, freezers, life buoys, toys, packages, sandwich building panels and displays. It is the right choice wherever lightweight, strength, insulation, buoyancy, low water absorption, and smooth, precisely molded features are important. Remember, Koppers Expandable Polystyrene is shipped in beads. As a result your freight savings may be as high as 60% of the shipping cost of expanded polystyrene planks and logs.

For more information about Koppers Expandable Polystyrene write for our 26 page booklet today.

**Molding is easy.** A simple machine is all that is needed to expand this new polystyrene into sheets, blocks, or intricate shapes. The molding operation takes but a few minutes.



**Making a mountain out of a molehill.** This small pile of polystyrene granules has been foamed up to about 30 times its original size. It can be molded into any shape you need.

**KOPPERS COMPANY, INC.**  
Chemical Division

Dept. BW-9114, Pittsburgh 19, Pennsylvania

SALES OFFICES: NEW YORK • BOSTON • PHILADELPHIA  
ATLANTA • CHICAGO • DETROIT • LOS ANGELES

*Koppers Plastics Make Many Products Better  
and Many Better Products Possible*



## Koppers Plastics



## HAS YOUR LIGHTING KEPT PACE WITH PROGRESS?



### You're always ahead with Sylvania Fluorescent Lamps because of Complete Versatility



You can obtain Sylvania lamps in every diameter, type, and size you need. You can also have them in many color tones to add eye-appeal to your merchandise, or to bring an abundance of natural light to offices and stores. Also, you can have Sylvania lamps that start quickly . . . or instantly!

Remember, Sylvania Fluorescent Lamps must assure you of complete satisfaction or your money back.\* See them at your Sylvania dealer's today!

\*Try 24 Sylvania Fluorescent Lamps of any popular type. If, in your opinion they don't give more light and maintain color and brightness for a longer time than any other brand, send them back with your signed Certificate of Assurance and your money will be refunded.



# SYLVANIA

Sylvania Electric Products Inc., 1740 Broadway, New York 19, N. Y.  
In Canada: Sylvania Electric (Canada) Ltd., University Tower Bldg., St. Catherine St., Montreal, P. Q.

LIGHTING • RADIO • ELECTRONICS • TELEVISION

about £A1.8-million. Next day, Melbourne jubilantly flashed the news that both the dividend and the undivided profits would be ploughed back into the company.

• **Production Speedup**—It's becoming quite a business, far and away Australia's largest auto maker. GM-Holden's has just wound up a \$24-million expansion program, last year sold 44,175 Australian-built Holdens, assembled and sold close to 15,000 U.S. and British cars and trucks, produced \$15-million worth of other products, mainly refrigerators. Holdens are now coming off Melbourne assembly lines at a 240-a-day rate.

That output should rise to 300 daily, 72,000 a year, when the latest development plans are completed. Just under half of the new money is going into a 550,000 sq. ft. assembly plant outside Melbourne, and GM-Holden's is already shopping for machine tools in the U. S., Britain, and Germany. When the plant's finished—probably two years from now—plus extensions to the present plant, you'll see the beginning of real mass production—100,000 cars yearly—in Australia.

• **Home Product**—GM designed the Holden for Australia and built it there from scratch starting late in 1948. The chief competitors, British auto makers, have been slower in moving toward an all-Australian auto. Now British Motors Corp. of Australia has bought a five-acre site opposite GM-Holden's present plant, preparing the ground for a sweeping expansion of Austin car and engine manufacture in Australia.

## New Deal in Canal?

For the past year, Washington and Panama have been trying to work out a new deal covering U.S. occupation of the Canal Zone. All Latin America is watching to see whether the Yankees will give little Panama a fair shake. This week, Panamanian Pres. Jose Antonio Remon Cantero told BUSINESS WEEK that the new arrangement will be wrapped up soon. Washington officials, off-the-record, agreed.

Under the 1904 treaty with Panama, the U.S. has full control of the Canal Zone until 1995. There are plenty of sore spots, especially in business relationships, that a revision will try to ease. For example:

• Panama wants more annual rent for the Zone—the best guess is that \$2-million might do the trick. Now, the U.S. pays \$480,000 yearly, before 1936, the fee was \$250,000.

• Panama claims there's sharp wage discrimination between its citizens working in the Zone and U.S. citizens. A Panamanian truck driver may get only 36¢ hourly, a U.S.



Mel-  
that  
ided  
the  
  
ning  
Aus-  
en's  
pan-  
175  
and  
itish  
lion  
re-  
g off  
10-a-

aily,  
lop-  
nder  
into  
side  
eady  
. S.,  
the  
ears  
ores-  
g of  
cars

the  
here  
The  
cers,  
an  
tors  
five-  
sent  
keep-  
gine

and  
out  
tion  
rica  
ees  
ake.  
An-  
RESS  
will  
offi-

ma,  
anal  
y of  
rela-  
to

rent  
\$2-  
the  
36,

arp  
citi-  
f. S.  
iver  
f. S.

1954



## Are today's businessmen shrewd enough?

There is little doubt that the modern businessman is a go-getter. He's alert to every new trend and opportunity. He's a merchandiser. A promoter. A keen-minded business-builder.

But how well does he keep his guard up? How cagey is he about protecting the interests of his firm?

The shocking truth is that an incredibly high percentage of businessmen are permitting a situation to exist which could put them completely out of business practically overnight.

The odds are that you, *yourself*, are entrusting your accounts receivable and other

business records to an "incinerator" safe. A safe which does not bear the independent Underwriters' Laboratories, Inc. label, and could *cremate* those irreplaceable records if a fire started.

If you are counting on a fireproof building to prevent such a tragedy, look out! For fireproof buildings just *wall-in* fires. Make them *hotter*!

And if you expect your fire insurance to cover all losses under all conditions, just remember that there's a clause which says: "proof-of-loss must be rendered within 60 days." Could you "render" it without records?

*Don't leave yourself wide open. It's dangerous!*

Out of every 100 firms that lose their records in a fire—43 never reopen. And the other 57 struggle for years to recover.

Check *your* safe, today. Get a *free* Mosler FIRE "DANGERater" to determine your exact risk. Then get the protection it *calls* for. But trust nothing but the best. Mosler is recognized as the leader in protection, styling, value. Check classified telephone directory for the Mosler dealer in your city. See his complete line of Mosler Record Safes. Or mail the coupon for free "DANGERater," now!



### FREE! TELLS YOUR RISK!

The FIRE "DANGERater" dials in 30 seconds the answer which may save your business from ruin. Easy to use. Accurate. Authentic. Based on experience with thousands of fires. Figures in over a dozen vital factors about your business. Mail coupon for your free "DANGERater," now. No obligation.

IF IT'S MOSLER . . . IT'S SAFE

*The* **Mosler Safe** *Company*  
Since 1848

World's largest builders of safes and bank vaults . . . Mosler built the U.S. Gold Storage Vaults at Fort Knox and the famous bank vaults that withstood the Atomic Bomb at Hiroshima

The Mosler Safe Company, Dep't BW-9  
32nd Street and 5th Avenue, New York 1, N. Y.

Please send me (check one or both):

- ☐ Free Mosler FIRE "DANGERater,"  
☐ Catalog, showing the new series of Mosler Record Safes.

NAME.....POSITION.....

FIRM NAME.....

ADDRESS.....

CITY.....ZONE.....STATE.....



**"There goes another foreign shipment** on its way—and that was a close one. Our Export Department tells me that since using the Erie our shipments have made every boat."



**"You can hand a lot of credit** for that to Erie's foreign freight traffic people. They pride themselves on their handling of export problems. It seems as though they have the know-how to get the job done and on time."



**Erie's fleet of diesel tugs, barges and other craft** is one of the largest in New York Harbor. Port facilities—open and covered piers, modern yards, all served by the most modern handling machinery—add up to fast and economical handling for shippers. Call your nearest Erie representative for safe, dependable transportation—foreign and domestic—and "Route it Erie".



**Erie Railroad**  
DEPENDABLE SERVICE BETWEEN NEW YORK AND CHICAGO

Map showing the Erie Railroad route connecting Chicago, Cleveland, Buffalo, Rochester, Youngstown, Scranton, Jersey City, New York, Pittsburgh, Cincinnati, and Indianapolis.

driver up to \$3. This poses a knotty problem—already private Panamanian employers are hard-pressed to meet the Zone's wage competition.

• Panama's businessmen, paying stiff import taxes, want elimination of tax-free sales of merchandise within the Zone. They say the original treaty allowed tax-free status for "necessities," but now Zone stores sell everything from cosmetics to caviar.

• Panama wants a waiver of the buy American Act vis-a-vis Panama. The act forces the Zone government to buy supplies in the U.S. unless they can be had in Panama for more than 25% less. This stifles local industry (lumber is an example) because increasing Panama wage rates, set by Zone scales, force up local production costs—a vicious circle for Panama.

## BUSINESS ABROAD BRIEFS

More and more Volkswagens are beelting off West German assembly lines and into world markets. Production this year should reach 235,000 units, with 300,000 the goal in 1955. Exports, growing fast, may soon exceed sales in West Germany.

General Motors de Mexico plans a new midget (4.6 cu. ft., \$160) refrigerator, to be built at GM's Mexico City plant. It's an attempt to create a mass market for refrigerators in Mexico, something makers of conventional-sized boxes (including GM) haven't been able to find.

Suez Canal Co. (BW-Jul.24'54,p111) racked up the best half-year in history—6,652 ships measuring 50-million tons used the waterway January through June. Increasing crude and refined products shipments account for the big business at Suez.

Europe in Latin America: Dutch engineering consultants got the contract for an exhaustive study of Mexico's sweeping 20-year port development program. . . . An Italian firm, Liquigas, Milan, won a Rio government O.K. to produce liquefied petroleum gas in Brazil. . . . Cie Financiere, Paris, is looking over business in Brazil for possible new franc, and other currency, industrial investment.

Canada's industrial production for June was up a bit over May, but still almost 3% below last year. The Dominion Bureau of Statistics reports the June index (1935-39 equals 100) at 251.3, compared to June, 1953, at 257.5. Durable goods output was down 12%; nondurable unchanged. Note the mining production index—12% above June last year.

# What Works 12,000 Times a Minute?

...for the  
paratrooper

...for the  
geologist



...for you  
and your car



**THE ANSWER** is a unique device called a vibrator — no kin to the gadget of the same name widely used in barber shops and beauty parlors.

Scarcely larger than a man's thumb, the fast-working vibrator helps boost low voltage current from storage batteries to higher voltages required by car radios and automatic headlight dimmers . . . by the portable ultra violet lamps geologists use to quickly identify the ore content of rock . . . by the vital two-way radio of the paratrooper.

To do this job, tiny metal reeds in the vibrator oscillate so fast they make and break electrical contact more than 12,000 times a minute.

Mallory pioneered vibrator development nearly 25 years ago . . . has consistently led the field . . . and today supplies more vibrators for use as original equipment in automobile radios than all other manufacturers combined.

Because of their precision construction and outstandingly dependable performance, Mallory vibrators are used in many other applications—mobile two-way radio used in police, taxi and industrial service, jet engine starters, garage door openers and automotive test equipment to name but a few.

Such wide acceptance is typical of all Mallory products in the fields of electronics, electrochemistry and specialized metallurgy —products backed by long engineering experience and diversified research.

## MALLORY

SERVING INDUSTRY WITH THESE PRODUCTS:

Electromechanical • Resistors, Switches, Television Tuners, Vibrators  
Electrochemical • Capacitors, Rectifiers, Mercury Batteries  
Metallurgical • Contacts, Special Metals and Ceramics, Welding Materials

P. R. MALLORY & CO., Inc., INDIANAPOLIS 6, INDIANA

lotty  
nian  
the

ying  
n of  
the  
reaty  
ies,"  
hing

the  
ama.  
at to  
they  
than  
ustry  
reas-  
Zone  
costs

S

bee-  
lines  
this  
with  
ports,  
es in

new  
or, to  
plant.  
arket  
hing  
(in-  
find.

(111)  
ory—  
tons  
ough  
prod-  
big

engi-  
ct for  
veep-  
gram.  
ilan,  
duce  
...  
over  
ranc,  
invest-

June  
most  
union  
June  
51.3,  
57.5.  
12%;  
min-  
June

1954



## Flour Milling . . . and *The National City Bank of New York*

---

*Flour mills borrow large sums  
to bring you a food bargain*

---

Not long after the Declaration of Independence, a miller named Oliver Evans built a new kind of flour mill. It used conveyor belts, spiral chutes, and other unheard of devices to free men from back-breaking labor. Flour was turned out more cheaply and with unbelievable speed . . . and America saw one of its first assembly lines.

Before Evans' time, a man had to work about a week to buy a 100-lb. sack of flour. Today, an unskilled American laborer earns enough to buy a sack of flour in a few hours. But his wife would

hardly have use for such a bulky bundle. She most likely buys her bread already baked.

Grain products are a food bargain. They provide almost a third of your proteins and calories, yet account for only one-eighth of your grocery bill. Even for a large-volume industry, the miller's profit margin is relatively small—about a penny on the dollar.

Millers are traditionally large users of bank credit, because they often find it convenient to buy several months' supply of wheat at one time. Over the years, many of them have come to regard The National City Bank of New York as *their banker*. Not only do they turn to us for financing, but they

also find our foreign facilities, transcontinental banking arrangements, and other services helpful.

National City has 71 Branches in Greater New York and correspondent banks in every state; overseas, 57 Branches and correspondents in every commercially important city. For more about the benefits of having National City as *your banker* and covering the world with one bank account, write:

The National City Bank of New York  
55 Wall Street, New York, N. Y.

Member Federal Deposit Insurance Corporation

**First in World Wide Banking**







# INTERNATIONAL OUTLOOK

**BUSINESS WEEK**

**SEPT. 11, 1954**



**The U. S. and Red China are testing each other's strength.**

At Manila, Secy. of State John Foster Dulles has put together a South-east Asia defense pact that is aimed directly at Peking.

Off South China, the Communists are getting set to storm the Nationalist-held coastal islands of Quemoy and Amoy.

**Red China is throwing plenty into the fight for Quemoy and Amoy—**but not as a preliminary to an invasion of Formosa. Peking knows full well that the U. S. Seventh Fleet would stop that.

**This affair is a pocket war with a largely political goal.** The Communists are waging it to weaken the U. S. position. They hope to get three things:

- Stronger backing from the neutrals in the United Nations for the admission of Red China.

- Support from India and Indonesia for Peking's line that the peace of Asia hangs on the issue of Formosa.

- A new clash between the U. S. and Britain over Asian policy.

**Dulles managed this week to put a roadblock in Red China's way.** At Manila he got a pact that:

- Binds Britain, Australia, and New Zealand with the U. S. in protecting the Philippines, Thailand, Malaya, and Pakistan.

- Creates a framework for joint military action in case of a renewed Communist threat to Laos, Cambodia, and non-Communist Vietnam.

- Provides machinery for joint diplomatic, political, and economic action in Southeast Asia. This could be the most useful part of the whole pact.

**This pact isn't what Dulles originally wanted.** Still it's quite a feather in his cap.

He has tied the British to a joint policy in Southeast Asia without impairing his own freedom of action in the rest of Asia.

At the same time, he can now count on British cooperation in resisting Red China's demand for membership in the U. N.

—•—

**The West's crisis is even deeper than it looked last week.**

Unless an alternative to the European Defense Community can be found this fall, the North Atlantic Treaty Organization could fall apart. Yet no alternative is in sight.

Both Washington and Paris are digging in their heels. And London is making no headway in narrowing the differences.

Prime Minister Churchill proposed a special nine-power conference in London next week. He planned this as a preliminary to a full scale meeting of the NATO council in October.

Now it looks as if the London conference won't come off. Washington and Bonn were cool to the idea from the start. They don't want another fiasco like Brussels.

So things may remain in the air until the NATO council gets together.

—•—

**The U. S. will stick to its guns on one thing—bringing West Germany into the Western Alliance as an equal partner.**

# INTERNATIONAL OUTLOOK (Continued)

**BUSINESS WEEK**

**SEPT. 11, 1954**

It's not just twelve German divisions that Washington is concerned about. The whole pro-Western policy of Chancellor Adenauer is at stake.

If Adenauer is weakened any more, Moscow would have a chance to pull West Germany into a neutral position or even into the Soviet camp. If Washington should have to choose, it would take French neutralism ahead of German neutralism.

London agrees with Washington that Adenauer must be backed up.

But the British won't take the chances we will of alienating the French.

A choice between France and Germany is the last thing London wants to face.

So the British will try to bring the French around to a position that both Washington and Bonn can accept.

The problem is this: How to satisfy French demands for controls over German armed strength and, at the same time, give Bonn equal status in NATO.

So far Premier Mendes-France has refused to agree that Germany should be a full partner in NATO.

He has been angling for a British-French alliance that would permanently keep Germany in an inferior military position. Or, barring that, he wants NATO revamped to serve the same purpose.

It's a real question whether the French Premier can be budged. Washington even wonders if Mendes-France's real aim isn't to make France a neutral—and make himself a European Nehru.

If Mendes-France does come round, there's a question as to whether he can sell a compromise to the French Parliament. This won't be clear until the French Parliament reassembles in November.

If Mendes-France goes out of office, there's no guarantee that a more pro-Western government can be formed.

Don't underrate the French Premier's political strength, however.

Some who supported EDC may swing to Mendes-France's side now that Adenauer is taking a tougher attitude toward France.

What's more, Mendes-France expects to pick up strength from economic moves. He plans to decree soon a 5% cut in the price of industrial coal and a 10% cut in the cost of industrial electricity. He'll follow this up by offering government financial aid for industrial mergers and government grants for low-cost housing.

We'll do this even at the risk of France going neutral—and perhaps pulling out of NATO.

You can expect Moscow to launch a new diplomatic offensive to prevent a Franco-German compromise.

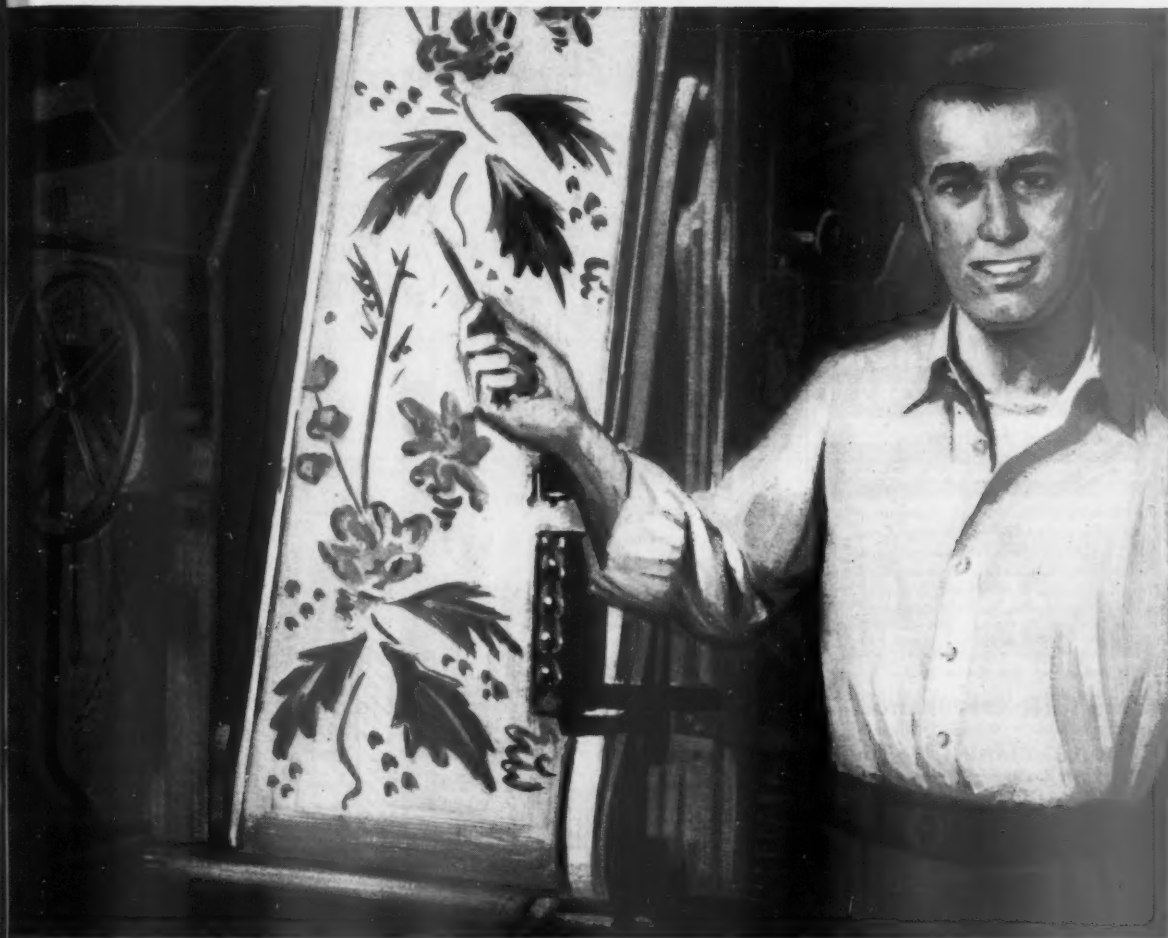
Molotov might offer a new version of his European security plan. It would try to satisfy both France and those West Germans who put German's unity above everything else.

This could lead to a new East-West conference on Germany—one where Molotov would have a chance to repeat his Geneva performance.









## How one idea saved millions of yards of fabric

For hundreds of years most textile printers had been saddled with a costly practice. To blot up the excess color that struck through the printed fabric, a second length of cloth, called a "back gray" had to travel with the white goods through the machine. Back grays cost money to buy; they need frequent washing and drying; and, too soon, they end up as practically worthless material.

Today, in most parts of the world, a process developed by Dewey and Almy chemists and engineers has replaced the costly back grays. First our chemists compounded from synthetic rubbers, a special endless blanket that traps the excess color in embossed channels. Our engineers followed through with equipment that washes

and dries the color-laden blankets while they are in continuous use. The new process saves money; it speeds production; it has saved millions of yards of fabric.

Perhaps in your business, too, there is a lingering problem whose solution requires the same combination of chemical and mechanical know-hows that has led to the development by Dewey and Almy of print blankets, of CRYOVAC packaging, of "flowed-in" sealing compounds, and of the other varied products and processes listed below.

Shoe Materials • Sealing Compounds for Food Cans • Adhesives  
CRYOVAC bags for Food Packaging • Soda Lime • Flowed-in  
Gasket Compounds • Battery Separators • Chemical Products  
for the Construction Industry • Meteorological Balloons • Textile  
Printing Products • Organic Chemicals



**DEWEY and ALMY**  
**Chemical Company**

Cambridge 40, Massachusetts

Offices or Subsidiaries in principal U. S. cities and in Buenos Aires, Copenhagen, London, Melbourne, Milan, Montevideo, Montreal, Naples, Paris, São Paulo, Tokyo.

"Always Makes a  
Good Impression"



**Heyer CONQUEROR**  
SPIRIT DUPLICATORS

with ALL the features . . .

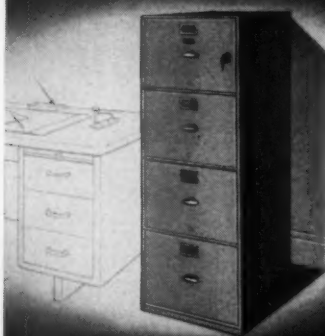
- Print 120 or more copies per minute.
- Print 1 to 5 colors, in one operation.
- For sharp, clean, copies Conqueror features include—Raise-and-Lower Control . . . Adjustable Fluid Control . . . Built-in Reset Counter . . . Pressure Control . . . Positive Rotary Feed.

The Heyer Conqueror Model 76, Spirit of '76 gives you for the first time "push-button" automatic electric duplicating . . . gives you complete freedom from manual effort.

Write today for descriptive booklet

**THE HEYER CORPORATION**  
1823 S. Kostner Ave. Chicago 23, Illinois  
Quality Duplicators and Supplies Since 1903

**COSTS ABOUT DOUBLE  
AN ORDINARY File**



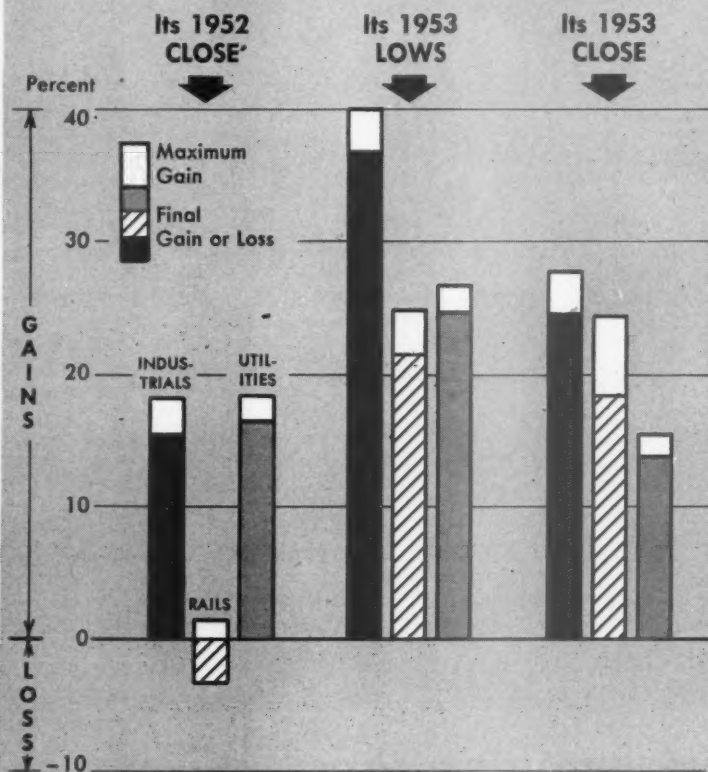
And is worth it. For if a fire destroyed vital records it might cost you your business. An ordinary steel file is an incinerator. This Hercules steel file, certified fire-resistant by Underwriters' Laboratories Inc., protects papers 24 hours a day at point of use. Many key and combination locking arrangements, on one drawer or all, insure privacy, prevent pilferage. 2, 3 and 4 drawer sizes at your Meilink dealer—or write Meilink Steel Safe Company, Toledo 6, Ohio.

with **MEILINK** it's for keeps

## THE MARKETS

### Where the Market Stands Now

Percent Change Since:



Data: Standard & Poor's Corp., Daily Stock Price Indexes.

©BUSINESS WEEK

## A New Lease on Life

The rip-snorting Wall Street bulls are back in business this week.

On Wednesday morning, Big Board prices tilted upward for the fifth straight day. For the bulls, this recovery from the late August break meant that the primary trend was still up as it has been for so long (chart above). The break, they chortled, was just one of those corrections to be found from time to time in every long advance.

The bears can't see such rosy colors. For them, it's getting clearer by the day that the steam is leaking out of the bull market. They point out that the latest correction was more severe than the one that preceded it.

• **Reaction**—As the sags get deeper, the rebounds become shorter. The rally in the past two weeks has been a good deal less vigorous than the one that

followed the June break. On the earlier occasion S&P's industrials dropped over 11 points in seven days, but regained virtually all the ground in the five days that followed. This time, September's clambering back has yet to reach the peak from which August fell.

In further support, some bears argue that in the long climb from last year's low, many stock prices have worked too high, with yields becoming too small to be attractive (tabulation, page 163).

• **Caution**—As far as the immediate market picture is concerned, the old pros refuse to go out on the limb of advising clients to take on heavy new commitments.

Here's what Standard & Poor's has to say: "We would not hastily reinvest reserves, believing that more favorable



buying opportunities may be presented."

And of the near-term outlook: Moody's Investors Service has this to say: "To hold some buying reserve is a good idea."

• **More to Come**—Just the same, both these old pros, still unequivocally assert that there's more bull market to come.

Says S&P's: "We do not foresee a break in stock prices severe enough to call for a reduction in long-term invested positions in selected issues. Basic fundamentals have not deteriorated seriously. Corporate earnings gen-

erally are at a relatively high level, dividend payments are headed for a new record, yields on common stocks are still attractive relative to the return on bonds, confidence remains strong."

Moody's chimes in with this: "Looking ahead beyond the next month or so, there is no reason to suggest that the bull market . . . is yet near a finishing point. . . . It is fair to assume that the signs of fatigue that have recently appeared do not represent a culmination of the longer trend, but at worst the arrival of a period of pause."

## How Rising Prices Have Squeezed Yields

Common Stock	Sept. 1953 Low	Recent Level	Per Cent Rise	Yield at Sept. 1953 Low*	Yield at Recent Level*
Allied Chemical & Dye.....	\$62.00	\$91.00	46.8%	4.84%	3.30%
Aluminum, Ltd.....	43.12	66.87	55.1	4.64	3.00
Aluminum Co. of America.....	45.00	80.00	43.7	3.37	2.00
Amerada Petroleum.....	150.25	180.00	19.8	2.00	1.67
Columbia Broadcasting "A".....	42.25	62.00	46.7	4.38	2.98
Copper Range Co.....	19.37	44.00	127.2	4.10	1.82
Corning Glass.....	77.00	114.00	48.1	2.60	1.75
Dixie Cup Co.....	32.00	58.00	81.3	5.20	3.10
Dow Chemical.....	33.75	40.50	20.0	3.00	2.47
E. I. du Pont de Nemours.....	94.00	137.12	45.9	4.00	2.92
Evans Products.....	10.00	16.25	62.5	5.00	3.08
Filtrol Corp.....	14.75	28.50	93.2	5.40	1.75
General Electric.....	22.87	43.37	89.6	5.80	3.69
R. P. Goodrich.....	60.50	99.50	64.5	4.50	3.22
Grand Union Co.....	27.00	41.25	52.8	3.70	2.42
Hercules Powder.....	60.25	89.75	49.0	5.00	3.34
Hooker Electrochemical.....	55.00	76.00	38.2	3.60	2.63
Houston Lighting.....	23.75	38.37	61.6	4.40	3.13
Houston Oil.....	54.00	76.50	41.7	4.20	2.94
International Business Machines.....	226.00	283.00	25.2	1.80	1.41
Jefferson Lake Sulphur.....	17.25	34.50	100.0	6.10	3.48
Lehigh Portland Cement.....	26.00	39.75	52.9	4.60	3.27
Lilly Tulip Cup.....	61.75	90.00	45.7	4.00	2.66
Minneapolis-Honeywell.....	55.50	92.25	66.2	4.10	2.60
Minnesota Mining & Mfg.....	43.87	66.25	51.0	2.30	2.11
Monsanto Chemical.....	79.00	84.00	6.3	3.20	2.98
John Morrell & Co.....	10.75	14.62	36.0	4.70	3.42
National Cash Register.....	51.75	85.25	64.7	5.30	3.52
Northrop Aircraft.....	13.37	43.50	225.4	7.50	3.57
Owens-Corning Fiberglass.....	38.00	64.00	68.4	1.68	1.56
Panhandle Eastern Pipe Line.....	65.00	72.00	10.8	3.80	3.47
Pennsylvania Glass Sand Co.....	28.00	45.00	60.7	4.20	3.11
Pennsylvania Salt.....	42.00	46.50	10.7	4.00	3.66
Pet Milk Co.....	40.00	63.00	57.5	4.40	2.78
Chas. Pfizer.....	29.50	36.25	22.9	4.20	3.45
Reynolds Metals.....	42.75	75.00	75.4	2.30	2.00
Scott Paper.....	60.50	89.00	47.1	4.50	3.37
Subboard Oil.....	25.00	37.00	48.0	3.32	2.16
Spencer Chemical.....	49.25	68.25	38.6	5.50	3.52
Standard Oil (Ind.).....	65.62	79.25	20.8	3.80	3.15
Tennessee Corp.....	33.00	71.00	115.2	6.10	3.24
Texas Gulf Producing.....	35.87	75.00	109.1	3.90	2.07
Texas Pacific Coal & Oil.....	30.50	46.50	52.5	5.40	3.55
Texas Utilities.....	40.50	55.37	36.7	4.80	3.76
Thompson Products.....	41.25	83.25	101.8	4.50	2.40
Union Carbide & Carbon.....	62.87	78.75	25.3	4.00	3.17
Vanadium Corp.....	30.25	68.25	125.6	7.90	3.52
Vick Chemical.....	25.62	44.25	72.7	4.70	3.39
Viking Corp.....	43.75	61.62	40.8	4.20	3.25
Westinghouse Electric.....	39.50	68.50	73.4	5.10	2.92

N.B. Where necessary prices have been adjusted to allow for stock splits. \* September 1953 yields figured on 1953 dividend payments; current yields have been figured on indicated 1954 dividend rate or rate paid in 1953.



**Put this MONEY**



**to work for you!**



Every business that deals in products has unsold inventory on hand most of the time. This idle inventory can be turned into cash quickly—by borrowing on it.

It's as simple as this:

Douglas-Guardian issues field warehouse receipts on the merchandise *right where it stands*. These receipts—turned over to your bank—become sound security for a bank loan. Result: You get the cash you need to pay bills, meet payrolls, take discounts and buy raw materials. And, of course, as you repay your loan, your inventory becomes available for filling orders.

FOR COMPLETE DETAILS,  
MAIL THE COUPON

### DOUGLAS-GUARDIAN WAREHOUSE CORPORATION

118 N. Front Street • New Orleans, La.

Please have a representative from your nearest office phone me for an appointment.

Your Name and Title.....

Name of Company.....

Address.....

Phone Number.....

RW 9-11-53



Things happened fast in the fashion world this week, as the new Paris models began to arrive. Almost before officials had unveiled the Russeks collection, manufacturers were figuring out how to compromise the "flat look" originals with a bosominous America.



1. Out of the trunk, David Nemerov (left), Russeks' chairman, triumphantly hauls the creations he helped buy. For next few hours, his office is a scene of bedlam.

## Rushing Paris Ideaso



4. Into the studio, for pictures. "Wonderful," photographer comments.



5. On to the manufacturer. "We can do this part by machine."



6. Price dispute. Nemerov wants to sell for \$49.95. Manufacturer holds out



2. A manufacturer and designer decide, "We can leave out this seam."

3. Onto the model. Buyer George Edis inspects a dress while publicity chief writes description for press preview next day. "Is that where the belt goes?"

## ease the U.S. Market

(Story continues on page 166)



to sell for \$45. "You want to sell dresses, don't you?" says he—and wins the argument.

7. Compare: Designer (left) models the copy; a model sports the original. "I can move in this one," says designer. Russeks' Edis (right) says it is O. K.



Photographed underwater at Weeki Wachee Spring, Florida

## Purchasing Agent makes Patapar underwater test

You don't have to move *your* office under water to prove to yourself that Patapar Vegetable Parchment really does have an almost unbelievable WET-STRENGTH. You can soak Patapar for hours and hours — even boil it — but it still stays strong.

### Patapar resists grease too

Patapar resists the penetration of fats, oils and grease just as effectively as it stands up in water. These qualities make it ideal as a food wrapper and for many other uses. And — Patapar is NON-TOXIC.

### Some of Patapar's many uses

Patapar is produced in different types that meet all sorts of exacting require-

ments. Some of its diversified uses: wrappers for butter, poultry, margarine, ham, bacon, pork loins, cheese and other moist foods; milk can gaskets; rubber releasing separators; translucent master sheets for direct print copy machines; dialyzing membranes; in hospitals for wrapping articles to be sterilized in live steam. It is furnished in rolls or sheets, plain or beautifully printed with colorful designs.

**In your business** perhaps there is a job that could be done better with Patapar. Tell us about it, and we will send information and testing samples of the type of Patapar we recommend. Write today.

**Patapar®**  
Vegetable Parchment

HI-WET-STRENGTH • GREASE-RESISTING

HEADQUARTERS FOR VEGETABLE PARCHMENT SINCE 1885

**PATERSON PARCHMENT  
PAPER COMPANY**

Bristol, Pennsylvania

West Coast Plant:

310 Bryant Street, San Francisco 7

Sales Offices: New York, Chicago

## Paris Models

(Starts on page 164)

At Russeks Fifth Avenue, Inc., H-Hour was 3:45 p.m. last Tuesday. At that moment, the trunks and crates carrying some 60-odd Paris and Italian originals—dresses, coats, suits, cloaks—arrived at the door of David Nemerov, chairman of the board. Within seconds, the rush was on to translate creations that cost Russeks from \$500 to \$1,500 apiece into items to fit the taste and purse of Mrs. U.S.A.

Nemerov and his co-buyers went over to Paris in July to hand-pick the garments that would make up the Russeks collection—valued this year at \$42,000. Russeks bought most of the originals itself; some were bought by dress manufacturers who will make the clothes for Russeks. In both cases, purchase meant not only the acquisition of a particular model but the right to reproduce it, or part of it.

• **Visitor's Visa**—Generally, though, the stores that represent the big market for the Paris designers do not sell the original. The clothes come here—by plane—under bond. That way, the buyer doesn't have to pay the 60% duty that would make the price prohibitive to all but the top-income customer. But after six months the clothes must leave the country again. Sometimes they go to Canada; sometimes back to the designer.

• **Scoop**—In their six months' stay here, those originals work like dogs. They have to create prestige for the store that buys them. More important, they serve as blueprints for copies. Because stores and manufacturers do not buy exclusive rights—a designer will sell to any reputable concern that has the price—the rivalry to come out first with copies of an expensive original is terrific. The Syndicat de Paris, made up of the designers themselves, holds up press photographs and sketches of the originals until the goods are on the way to this country, allows no others to make either. That protects the buyer from pirating before he has a crack at his own models. All the clothes leave France at the same time. But once they are here, the field is wide open.

• **Split Second Timing**—Russeks prides itself on moving fast. That's why, at 3:46 p.m. on Tuesday, Nemerov's office was in turmoil. As soon as the dresses had arrived, three store models piled in, two furriers, the advertising manager, the merchandising manager, the buyers, the publicity chief, the stock checkers, porters, along with Walter H. Weinstein, president, and Nemerov himself.

In one corner, stock clerks methodically check in the items; as soon as a



Inc.,  
uesday,  
d crates  
Italian  
cloaks—  
emerov,  
in sec-  
ranslate  
n \$500  
fit the

nt over  
he gar-  
Russeks  
42,000.  
originals  
manu-  
clothes  
urchase  
n of a  
to re-

though,  
market  
sell the  
ere—by  
y, the  
e 60%  
ce pro-  
me cus-  
clothes  
Some-  
netimes

ay here,  
They  
ore that  
ey serve  
e stores  
exclusive  
to ,any  
price—  
n copies  
ic. The  
the de-  
o press  
he orig-  
he way  
hers to  
e buyer  
crack at  
es leave  
nce they

s prides  
why, at  
ov's of-  
as the  
models  
vertising  
anager,  
ef, the  
g with  
nt, and

ethodi-  
on as a

# This Takes Skill!

**T**HIS plantation worker tosses coffee beans high into the air and with artistry of motion separates them from the chaff. It looks easy—but it takes skill.

It also takes skill to protect properly and adequately the heavy investment in property, machinery and equipment of the coffee business or any other business of Americans in foreign lands.

AFIA has that skill.

For AFIA, through its 500 world-wide offices and agencies, keeps constantly informed of local conditions and laws and thus provides insurance protection that meets every requirement abroad.

*Ask your insurance agent or broker to take your foreign insurance problems to AFIA*

*Write for the new AFIA booklet*



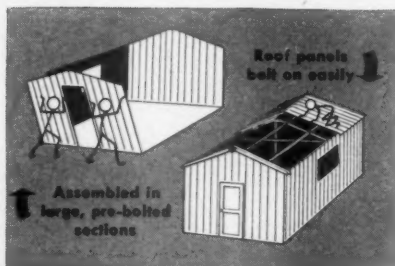
# AFIA

AMERICAN FOREIGN INSURANCE ASSOCIATION

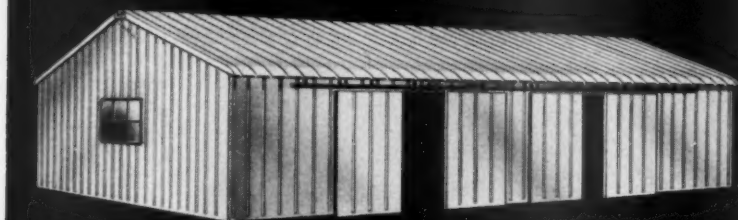
161 William Street • New York 38, New York

CHICAGO OFFICE . Insurance Exchange Building, 175 West Jackson Blvd., Chicago 4, Illinois  
DALLAS OFFICE . . . . . Mercantile Bank Building, 106 So. Ervay Street, Dallas 1, Texas  
LOS ANGELES OFFICE . Pacific Mutual Building, 523 W. 6th Street, Los Angeles 14, California  
SAN FRANCISCO OFFICE . . . . . 98 Post Street, San Francisco 4, California  
WASHINGTON OFFICE . . Woodward Building, 733 15th Street, N.W., Washington 5, D.C.

**NOW** 2 men  
put it up  
with a wrench  
in hours...



## NEW BUTLER Panel-Frame Building



New steel framework, with all-bolted construction, gives you fast assembly, plus long-life.

### Many Uses

You'll find unlimited uses for Butler Panel-Frame buildings—for field houses, bulk plants, supply depots, pump houses, electric power stations, garages—for every utility need. Sizes from 6' to 24' widths ... 8' or 10' high sidewalls ... in any lengths desired by adding extra sections.

Here's a new steel utility building that's a budget planner's dream!

With Butler panelized construction, wall panels can be quickly and easily pre-assembled into large sections and tilted into place on any type foundation. A wrench and screw driver are the only tools needed. Unskilled workers can easily do the job.

Roof panels go up just as easily by simply bolting them to steel frame and eave channels. In hours, instead of days ... and at minimum erection costs ... a Butler Panel-Frame building is up and ready for use. And you get built-in quality and construction features that have made Butler steel buildings preferred all over the world.

Carefully engineered framework gives you maximum strength per pound of steel. Butler galvanized, high-rib panels add extra strength ... provide permanent, weather-tight, fire-safe shelter.

Compare Butler Panel-Frame building prices and erection costs with those of conventional buildings. Learn how you can stretch your building budget. See your Butler dealer or write for free folder.



### BUTLER MANUFACTURING COMPANY

Manufacturers of Oil Equipment • Steel Buildings • Farm Equipment  
Dry Cleaners Equipment • Special Products  
Factories located at Kansas City, Mo. • Minneapolis, Minn. • Galesburg, Ill.  
Richmond, Calif. • Birmingham, Ala.

For prompt reply, address office nearest you:

#### BUTLER MANUFACTURING COMPANY

7313 East 13th Street, Kansas City 26, Missouri  
913A Sixth Avenue, S.E., Minneapolis 14, Minnesota  
1013 Avenue W, Ensley, Birmingham 8, Alabama  
Dept. 134, Richmond, California

Please send me name of my nearest Butler dealer and also your free folder on new Butler Panel-Frame steel buildings.

Name \_\_\_\_\_

Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

Zone \_\_\_\_\_

State \_\_\_\_\_

dress is tagged, a model gets into it, spins and parades before the critical eyes of the buyers. The publicity department people write furiously, describing each dress for the press showing the next day. Manufacturers drop in to get their look at the clothes they are to copy.

"That's a magnificent dress," says someone—but quietly; there's no time for fussing or swooning. "Here's your drape hip with the full skirt," says Nemerov proudly. "This is the Dior built-in bra that flattens," explains a dress buyer.

There are arguments. Should the dresses be sold with the bra or without? Arguments about where the belt goes—"It looks like hell this way." Arguments about whether a model has a dress on hindsides to—"Try it the other way." Arguments about alterations—"When you lower the armhole, you lose the look." Occasional exclamations of triumph: "That's it. There won't be a kid in Brooklyn or the Bronx who won't want one of those."

Next morning, some 120 members of the press come to the official preview. Immediately afterward, the manufacturers—about 20 of them—grab their creations, set out for their own shops in Manhattan's garment district.

• **A Day in the Life—BUSINESS WEEK** looked in on one of these dress manufacturing establishments, Suzy Perette. Designer Evelyn Dawson scrambles into the clothes.

"The wonderful thing about Paris," says Miss Dawson, as she struggles to make hook meet eye, "is that the designers don't care how a dress will fit. They just make a beautiful dress. Then we have to fix it so Mrs. Whoosis in Ohio and Bangor can wear it."

Tony, the patternmaker, is summoned. "We'll have to figure out a way to do this in one piece," he says. "I want to curve my darts," says Miss Dawson, "to make room for the bust."

Sidney Blauner, owner of Suzy Perette, explains that he himself, like many manufacturers, bought 15 dresses in Paris—that he will copy for stores in other cities as well as for Russeks.

• **Down to Size—At Suzy Perette's**, the measuring and marking that convert the original into a copy goes on. By Friday morning, the first reproduction is finished. George Edis, better-dress buyer for Russeks, looks it over. A suggestion or two: How about a belt? Is it a little short? and the dress gets its O.K. The original cost \$1,000. Within two weeks, the copy will be in the store—for \$39.95, though in other materials it may go to \$95. Coats and suits retail from \$65 to \$195.

The original has a job to do—of selling. Russeks will display it in the shop, and invite Mrs. Consumer to try to spot the difference.

into it,  
critical  
ity de-  
y, de-  
show-  
s drop  
es they

" says  
o time  
s your  
" says  
e Dior  
ains a

ld• the  
r with-  
ne belt  
way."  
del has  
it the  
altera-  
mhole,  
clama-  
There  
or the  
those."

embers  
al pre-  
e man-  
n—grab  
ir own  
istrict.

WEEK  
manu-  
Perette.  
es into

Paris,"  
gles to  
the de-  
will fit.  
Then  
osis in

sum-  
out a  
e says.  
ys Miss  
bust."

Suzv  
lf, like  
dresses  
stores  
Russeks.

te's, the  
convert  
on. By  
duction

er-dress  
ver. A  
a belt?  
ess gets  
\$1,000.

ll be in  
n other  
ats and

-of sell-  
e shop,  
try to

11, 1954

Retains strength in heat of sun

Greater dead-load strength

Makes stronger honeycomb panels

## Now . . . amazing new strength in an assembly-line adhesive

Armstrong's new D-253N represents a remarkable improvement in thermoplastic adhesives. It can hold a dead load double that of the strongest adhesive of its type previously available. And its greater resistance to heat makes it useful up to 180° F. In fact, D-253N virtually creates a new type of adhesive that's intermediate between thermoplastic and thermosetting cements.

This new development brings the assembly-line speed and convenience of air-drying cements to many applications where conventional thermoplastic adhesives fall short on strength and heat resistance. For example, D-253N is suitable for certain structural panels even where direct exposure to sunlight is involved. In addition, D-253N provides a much greater safety factor where thermoplastic adhesives are already being used.

D-253N is ideal for assembly-line production of modern sandwich-type panels. It can be spray-applied to almost any skin and bonds to almost any kind of core. Finished panels are ready for further fabrication or shipment in minutes.

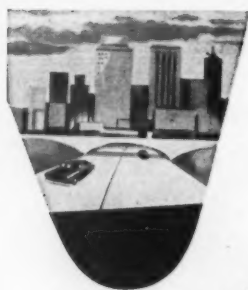
For more information on D-253N and other Armstrong's adhesives, write Armstrong Cork Co., Industrial Div., 8009 Indian Road, Lancaster, Pa. In Canada, 6911 Decarie Blvd., Montreal.

### ARMSTRONG'S

ADHESIVES • COATINGS • SEALERS

Made by the makers of Armstrong's Linoleum





Cities  
and

Industries are

**THIRSTY**

FOR WATER



...so is

Agriculture

Modern production techniques—the great increase in homes—the rapid growth of irrigation will add up to sharply increased water consumption. America is truly thirsty.

Layne, the world's largest developers of ground water resources, knows most about these thirsts—and how to satisfy them.

Ask your nearest associate company any question that relates to water or write direct to:

**LAYNE & BOWLER, INC.**

Memphis 8, Tennessee



**Water Wells  
Vertical Turbine Pumps  
Water Treatment**

*Layne Associate Companies  
Throughout the World*

## War on the Discount House

Department stores are massing to attack, after long period of doing nothing. Meeting the slashed prices is a key to improving their competitive position.

Department stores are getting ready for a major competitive battle. After several years of inaction, it was clear this week that the big stores have finally decided to fight back at the discount houses.

Last week the three biggest stores in St. Louis ran blistering ad campaigns attacking discount houses and their "undercover deals" (BW—Sep. 4 '54, p134). And the stores suited action to words by price cutting.

All three were following the lines of a counterattack launched a couple of months ago in Detroit, where giant Hudson's let loose a stiff advertising campaign against local discounters (BW—Jul. 17 '54, p110). Hudson bolstered its words with a firm statement that it would not be undersold on any item at any time.

• **NRDGA Session**—Later this month the battle will swing into a new phase when the National Retail Dry Goods Assn. holds a closed-door session in New York for its member stores. It will take the form of a clinic on ways to combat the discount houses. This follows NRDGA's recent extended study of the discounters' impact on department store business—admittedly considerable (BW—Mar. 20 '54, p156).

A BUSINESS WEEK survey across the country this week indicates that these seemingly isolated pieces of news actually weave together in a recognizable pattern. Department stores have finally waked up to the fact that they have to do something about their competitive condition.

Ever since the war, the big stores have been slipping. Their sales have been increasing, but not at a fast pace to keep up with the general increase in the economy. High costs have pushed down profits. Increasingly this has made them vulnerable to the discounters, who can undercut the department store prices.

On top of this, it looked very much as though the department stores had lost a taste for waging the old-fashioned kind of competitive battle that made them strong and famous.

For a long time they haven't done much but talk. They complained to fair trade manufacturers, saying that it is the latter's job to enforce a pricing policy. But the catch is that a lot of manufacturers want and need the broad marketing outlets that discounters give them. Besides, manufacturers retort, the department stores haven't always

been so interested in holding the price line on their goods.

Now, as BUSINESS WEEK's survey shows, the stores are doing more than talking. Here are some of the techniques being used:

**Discontinue or play down products** of manufacturers who don't enforce their catalogue list prices. An Atlanta store has stopped all local advertising of one well-known line. The merchandising manager of a store in Miami said he simply hides the items of manufacturers who "don't cooperate" under the counter—and gives big display space to the products of those who do play ball. Several stores in various cities have dropped appliance lines featured by discount houses, or shut down their hardgoods departments entirely.

**Switch to private brands.** The stores can get lesser-known brand appliances from so-called private brand manufacturers and sell them under their own store name, or in some cases get the big name makers to supply them with unbranded items. In either case the stores can sell them at greatly reduced prices. For example, a Los Angeles store is able to offer "a \$299 value (refrigerator, washer, range, or TV set) for \$199," this way.

**Simply cut prices.** Most stores are extremely reluctant to admit they fiddle with fair traded items, but more and more are doing it. One store manager said flatly: "We're not going to let the discounters undersell us on one single item, and I don't give a hoot whether it's fair traded or not."

**Campaign against discounters.** In addition to doing their best to get discount houses cut off from their sources of supply, or hauled into court in a fair trade suit, more and more department stores are planning on taking the direct approach. This is the ad campaign, a la Hudson's in Detroit and those of Famous-Barr, Stix, Baer & Fuller, and Scruggs-Vandervoort-Barney in St. Louis. Similar campaigns have been tried in Atlanta and Houston.

In Missouri and Texas, there are no fair trade laws on the books, so manufacturers can't complain about this kind of advertising. In Michigan, fair trade applies only to those stores that have signed price maintenance contracts.

But the ad campaign idea is spreading to other states that do have fair trade statutes in full force. Some stores say they have received the go-ahead for cut-price advertising on fair traded



long  
key

price

survey  
than  
tech-

products  
enforce  
Atlanta  
vertising  
mer-  
Miami  
ms of  
operate"  
ig dis-  
se who  
various  
es fea-  
down  
irely.  
stores  
liances  
unufac-  
r own  
et the  
n with  
se the  
duced  
angeles  
value  
r TV

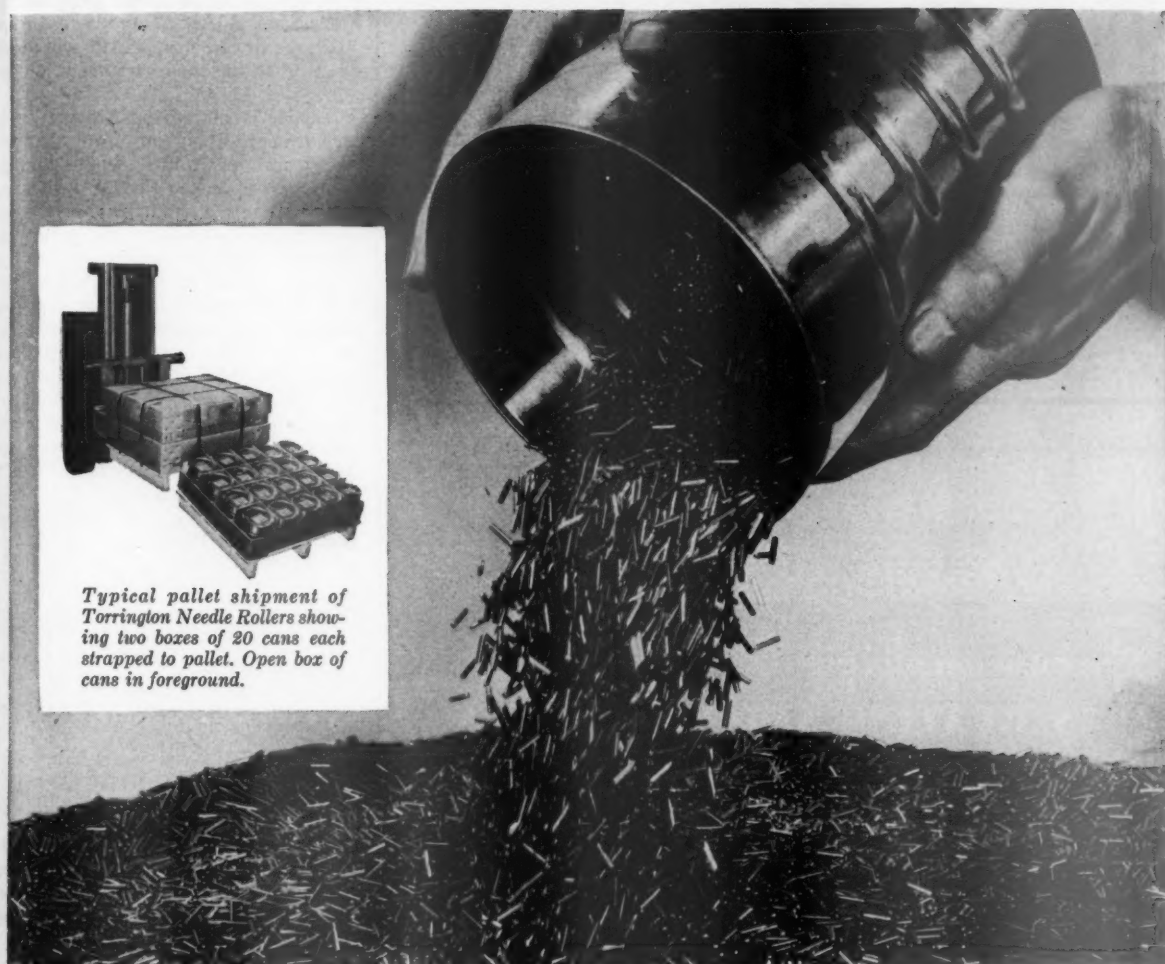
res are  
ey fid-  
more  
mana-  
ing to  
on one  
a hoot

rs. In  
to get  
their  
to court  
more  
on tak-  
is the  
Detroit  
Baer &  
Barney  
s have  
n.  
are no  
manu-  
is kind  
r trade  
t have  
cts.  
reading  
r trade  
res say  
ad for  
traded

1, 1954



*Typical pallet shipment of Torrington Needle Rollers showing two boxes of 20 cans each strapped to pallet. Open box of cans in foreground.*



## **Torrington Needle Rollers—Vacuum-Packed for Cleanliness—Palletized for Easy Handling**

Torrington Needle Rollers by the millions are now being vacuum-packed in tin cans to protect them from dirt, moisture and damage. The foods you eat are not packed with greater care.

This new vacuum pack permits us to send you rollers *dry*—free from oil or grease—so that they can go into your loading machines direct from the can, without time-consuming degreasing.

To make shipping and handling easier, we pack these cans 20 to a carton and strap two cartons to an expendable wooden pallet, for a total weight of about 1500 lbs. per pallet. This makes an easy load for your fork lift trucks to handle and store.

Torrington Needle Rollers deserve this special vacuum pack. They're precision rollers made under statistical quality controls of extraordinary rigor. Every step from alloy selection to polishing and packing is carefully checked to assure you that every can of rollers you receive meets your high standards. And to help you use these rollers to best advantage, Torrington's engineering staff is always available to assist in application design and testing.

Always specify Torrington for precision Needle Rollers in prime condition. In stock for immediate volume shipment.

**THE TORRINGTON COMPANY**

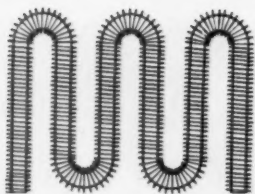
Torrington, Conn.

South Bend 21, Ind.

*District Offices and Distributors in Principal Cities of United States and Canada*

# **TORRINGTON NEEDLE BEARINGS**

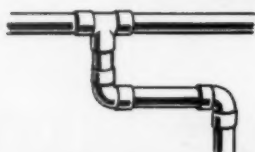
Needle • Spherical Roller • Tapered Roller • Cylindrical Roller • Ball • Needle Rollers



**copper**  
(and its alloys)



**aluminum**



**electric-welded  
steel**

## Tubemanship IN HEATING AND VENTILATING



Today, millions of people depend upon the comfort of an automatically-controlled indoor climate. They want it warm in winter, cool in summer; most of all, they insist upon a trouble-free installation.

It's comforting to know that Tubemanship puts a quality-control finger on the products made by Wolverine for heating and ventilating. There's tubing of copper, aluminum, and electric-welded steel. There are Fabricated Tubular Parts, Wolverine Trufin\*—the integral finned tube, and Wolverine Capilator\*—capillary tube for restriction purposes.

Result: the safe conveyance of steam, liquids, gases and air.

And remember, too, Tubemanship isn't only quality control. It's experience, research, facilities and the minds of men.

You'll find the complete story in Wolverine's Statement of Scope. Write for your copy—today. **WOLVERINE TUBE**, Division of Calumet & Hecla, Inc., 1501 Central Avenue, Detroit 9, Michigan. Plants in Detroit, Michigan, and Decatur, Alabama.

*Wolverine Trufin is available in Canada through the  
Unifin Tube Company, London, Ontario.*



**WOLVERINE TUBE**

DIVISION OF CALUMET & HECLA, INC.

*Manufacturers of Quality-Controlled Tubing*

PRODUCERS OF TUBING AND TUBULAR PRODUCTS OF COPPER,  
COPPER-BASE ALLOY, ALUMINUM AND ELECTRIC-WELDED STEEL

items from "suppliers and wholesalers," but usually this is granted only for special sales or else it applies to old-model items that the manufacturer is closing out.

Service is another key weapon many department stores are using to woo their customers back from discount houses. Special delivery, packaging store guarantees, credit payment terms, and trade-in allowances are being emphasized in their advertising.

Even in this field, the discounters have made inroads on what once was regarded as a department store feature. But despite the increased services now being offered by many discount houses, department stores feel this is their own special bailiwick for which they are by nature better suited. Some even feel added services alone are the answer to the discount house threat. One manager said: "As long as we keep offering our customers those extra attractions, we've got nothing to worry about." A lot of stores, on the other hand, are increasing their services to keep ahead of those offered by the discounters.

• **Prodding**—The hot-blooded reactions gathered around the country point up how seriously the department stores are beginning to take the discount house threat. The NRDGA, however, still isn't satisfied. Too many stores, the association admits, still aren't doing anything—or at least not enough. Admitting that as a trade group it can't take any direct action that might be considered collusive in violation of anti-trust laws, NRDGA does prod its members.

At the forthcoming session in New York, store managers from all over the country will take the floor to tell how worried they are over the discount house problem, and outline what measures their stores have taken to combat it.

• **Methods Questioned**—Some trade observers question the wisdom of the way the stores are fighting back. Discontinuing the line of a big-name manufacturer is cutting off your nose to spite your face, they say. Dropping hardgoods altogether is even worse, according to this view—another store will simply pick up the franchises.

The fact remains that the department stores have been pushed into a corner. Their campaign against the discounters has cost them a lot of money, probably will get even more expensive. But one store puts it this way: "We've already lost a lot of business to discounters. We've got to do something to meet their competition, especially on hardgoods. We think the manufacturers need our channels of distribution—so we'll just have to fight until we bring the manufacturers into line. It's the stores that haven't yet waked up that are hurting us."

## An Engineer From Scranton Tells Why . . .



# *Lackawanna Land is right for your new plant site!*

### "Power Is Plentiful In Lackawanna Land!"

A vast amount of low cost electric power, gas, oil, coal, coke and industrial water are available. Raw materials in abundance, including the world's finest anthracite fuel, limestone and salt.

Many other advantages await you in Lackawanna Land. They all add up to an ideal location for light or heavy manufacturing. Here is an enormous pool of skilled and unskilled labor with experience in a wide variety of industries. Here are ample housing facilities and all types of transportation. Here is an ideal climate, good living conditions, attractive communities.

Finally, there is easy access or actual proximity to the strategic Metropolitan Area of New York City, and the great Port of New York, gateway to the markets of America and the world. All in all, Lackawanna Land is right for your new plant site.

For information and confidential assistance, without obligation, please contact

**INDUSTRIAL DEVELOPMENT DEPT.**  
Room 1769, 140 Cedar St., N. Y.  
Phone BARclay 7-2500

### Plant Site of the Month

Level 50 Acres, just outside Scranton, adjacent pure cold water supply, especially suitable processing industry.



## Lackawanna Railroad

*Shortest Rail Route between New York and Buffalo*





## FROZEN SHAKEN SPRAYED

• You are pretty well accustomed to the advertisements which tell of the grueling road tests given to prove the dependability of new motor cars. It is even more important for the equipment which is used by the Army, the Navy and the Air Force to be given rigorous tests to prove its accuracy and dependability in combat.

• Would the 200G shock of a warship broadside shatter the complex mechanisms used to aim the guns? Would the heat extremes of desert or arctic battle make inaccurate or inoperative the new Army missile? Would a navigation system fail at 50,000 feet?

• Questions like these must be answered, and the instruments designed for these purposes must be able to pass all such tests successfully.

• At Ford Instrument, environmental testing laboratories reproduce every climatic and physical condition an instrument might encounter in actual service. Exhaustive tests are made with vibrators and pitch-and-roll equipment that simulate the shock of heavy seas, barrages and high altitude flight. Further tests are conducted in chambers that provide controlled temperatures of -120°F to 200°F . . . with humidity ranging to 100%. The corrosive effects of salt fog are determined after the instrument has been subjected to a period of punishment in a special salt spray cabinet. When every flaw has been detected and corrected the instrument is "okayed" for volume production and use throughout the armed services.

• This is a typical example of one of the many functions performed by the Ford Instrument Company in serving the Army, Navy and Air Force. Since 1915 Ford Instrument has pioneered in the field of computers and controls for aiming weapons and directing missiles and planes. Similar devices have been built to do many of the complex tasks of private industry.

► Each year Ford Instrument Company is adding to its staff of several hundred engineers. If you are an engineer and can qualify, there may be a position for you.



**FORD INSTRUMENT  
COMPANY**

DIVISION OF THE SPERRY CORPORATION

31-10 Thomson Ave., Long Island City 1, N. Y.

32

# Hazel Bishop Sues Gillette

The cosmetic maker says Gillette stole its trade secrets, used them in promoting Toni . . . Diamond industry looks for weapons to fight costume jewelry's inroads.

There's a new commotion in the usually-colorful cosmetic trade that points up the fury of its marketing battles. Hazel Bishop, Inc., has charged that Gillette Safety Razor Co. stole its trade secrets for the latter's new Toni brand Viv lipstick, is asking a New York court to grant it \$3-million in damages, throw Gillette out of the lipstick business, and force Gillette to turn all its lipstick profits over to Bishop.

Viv marked Toni's first entry into the lipstick and general cosmetic field (BW-May 22 '54, p61). Bishop countered this move by getting into the Toni-dominated home permanent market. Both firms are battling with Revlon Products Corp. for the cosmetic market lead, and are pouring ad appropriations estimated in the millions into the fight to win it.

• During a Dicker—In its suit against Gillette's Toni, Hazel Bishop charged that Gillette got a look at secret Bishop documents while negotiating to buy the company. Long after Gillette had given up plans for buying Bishop, the suit charges, Gillette "maintained a pretense" of still wanting to acquire the company so that it could get to see papers showing how Bishop made and marketed its lipstick.

Bishop claims Gillette-Toni copied Bishop's dome-shaped golden metal lipstick case, its merchandising plan of marketing only a limited range of shades, its advertising and display copy, its pricing structure, even its formula.

Gillette Pres. J. P. Spang, Jr., has publicly denied the Bishop charges as "completely false and without any basis in fact whatsoever." Gillette's formal answer in court is expected to heat the battle up still further.

This is the second legal upheaval the Bishop company has gone through this year. Last February founder Hazel Bishop of nonsmear lipstick fame (BW-Mar. 17 '51, p42) sued company Pres. Raymond Spector for mismanagement and fraud. The suit was settled when adman Spector bought out Miss Bishop's interest in the firm.

## Diamond Award

Costume jewelry has posed an increasing challenge to makers and merchandisers of fine jewelry. Last spring, De Beers Consolidated Mines, Ltd., handed its advertising agency, N. W.

Ayer & Son, Inc., an assignment: to dream up some way to stimulate interest in diamonds. The result was the Diamond U. S. A. Award.

Like the watch makers (BW-Sep. 15 '51, p146), De Beers and its agency agreed that fresh design might be the answer to sagging sales in a notoriously conservative business.

The award is to go to 100 pieces of jewelry, based on the excellence of the design. Diamonds must constitute at least 60% of the value of a piece. This week, award winners, already picked on the basis of sketches, handed in their finished product. But the winners will be under wraps till mid-October.

• Fresh Thinking—Judges came from a variety of fields: Richard Avedon, fashion photographer; Lilly Dache, fashion designer; Walt Disney; Polaire Weissman of the Metropolitan Museum of Art; and Mrs. Cornelius Vanderbilt Whitney, a representative of the consumer. All stressed designs in the lowest-priced group—those retailing at \$2,000 or less—because that's where new ideas were especially needed.

After looking at the sketches, the judges made no bones of the fact that they felt there was room for some fresh thinking. Significantly, there are few big names in the jewelry world among the winners.

• Sales Pattern—Some figures from a survey made by an independent research organization indicate why De Beers—and the jewelry trade—are concerned. In 1952, 48% of the jewelry stores surveyed reported an increase in sales over the preceding year. During 1953, only 30% did. Diamond jewelry fared better than over-all sales, but even here 30%, as against 34% the year before, registered an increase. Expectations for 1954 showed the same pattern. Early this year, only 14% expected to do better than 1953. The previous year, 25% were optimistic.

The Pictures—Burroughs Corp.—186, 187; Diesel Power, Inc.—192 (lt.); Horace Bristol—144; Henry G. Compton—165 (bot.); International News Photos—182; Bob Isear—165 (top); Herb Kratochvil—Cover, 62, 63, 164; Jay Levinton—28, 29; Archie Lieberman—78, 79, 80, 81; Ed Nano—110, 111.



secrets,  
books for

ment: to  
ate inter-  
was the

-Sep.15  
s agency  
t be the  
otoriously

pieces of  
ce of the  
stitute at  
ce. This  
icked on  
in their  
ners will  
er.

ne from  
Avedon,  
Dache,  
; Polaire  
tan Mu-  
ius Van-  
ve of the  
s in the  
ailing at  
s where  
ed.

hes, the  
fact that  
me fresh  
are few  
d among

from a  
research  
e Beers-  
concerned.  
ry stores  
in sales  
ng 1953,  
dry fared  
even here  
r before,  
itions for  
n. Early  
d to do  
ous year,

Corp.  
nc.-  
-144;  
ot.);  
-182;  
trato-  
Levi-  
nan-  
-110,

11, 1954



## WHY YOU CAN RELY ON

Since 1887 Dearborn has been combatting corrosion wherever it exists . . . with water treatment, engineered equipment and supervisory service for boilers, power plants...with NO-OX-ID rust preventives for the protection of metal surfaces...with cleaners and detergents for railroad and industrial use. This extensive specialized experience—plus Dearborn's complete research and development facilities—is available to you.

## Dearborn



Your Dearborn  
engineer can  
help you

DEARBORN CHEMICAL COMPANY • MERCHANDISE MART PLAZA • CHICAGO 54, ILLINOIS



IT'S **"ALL CLEAR"** NOW . . .



# BROWNHOIST

*saves money for* **RAILROADS**

*—because*

- *Brownhoist Cranes make short work of heavy lifting.*
- *maintenance costs are lowered.*
- *valuable hours are saved.*
- *the "All Clear" notice goes up more quickly.*

Pictured here is the world's largest (250 ton capacity) of the wide range of versatile cranes that have made BROWNHOIST a leader in its field for more than 80 years. At the other end of the line is a compact "little" powerhouse, the 25 ton Diesel.

Each size of crane has its own special features of design and construction. Ease of operation and minimum repair and maintenance cost are built in. BROWNHOIST CRANES can save money for you. They return your investment many times over.

*Write or phone any District Office for illustrated booklets and other information.*



**BROWNHOIST**

*Gives a LIFT to American Railroads*

**INDUSTRIAL BROWNHOIST CORPORATION, BAY CITY, MICHIGAN**

**DISTRICT OFFICES:** New York • Philadelphia • Cleveland • Chicago  
Denver • San Francisco • Canadian Brownhoist, Ltd. • Montreal, Quebec.

**AGENCIES:** Birmingham • Detroit • Houston

## MARKETING BRIEFS

TV's high cost is finally beginning to hurt other media besides radio, Tide magazine reports. Almost half of the nation's 100 biggest advertisers have chopped expenditures on other media this year to fatten up their TV budgets. For example: National Dairy Products sliced \$400,000 from newspaper supplements; Proctor & Gamble reduced radio and magazine ads by \$300,000.

Trading stamp forces won a legal round against Safeway under Oklahoma's unfair sales laws. A court decision continues a temporary restraining order against Safeway cutting prices. The grocery chain, which doesn't use stamps, claimed it had to cut its prices to meet the competition of the green stamps, and asked the court to rescind the order. Independent Grocers Alliance of Oklahoma brought the injunction suit.

Credit Sales in 1953 represented 58% of total department store volume, up 1.5% over 1952, according to National Retail Dry Goods Assn.'s latest credit management yearbook. Credit losses ran from .02% to .04% of sales—less than the loss from stock shrinkage.

Directory of discount houses has been published by Hoge, Farrell, Inc., of New York. Listing discounters from coast to coast, it sells for \$9.95.

There's "growing fraud" in the ball point pen industry, National Better Business Bureau warns. BBB advises consumers to look out for imitations of Paper-Mate brand, and unpackaged refills.

Economy models. New smaller, lighter Super V television set is being offered by Avco Mfg. Corp.'s Crosley Div. for \$139.95. Avco's Bendix Div. has announced reduced-price new models in its washer and drier lines; washers start at \$179.95, driers at \$189.95.

A punch-card system developed by Underwood Corp. matches real estate property specifications with prospective buyers' wants. Selector machine is keyed to prospect looking for, say, six-room rambler on a hill, picks out cards on only the houses that meet his specifications.

Carpet maker Alexander Smith served notice this week that it's very much in the running even though it closed its big mill in Yonkers, N. Y. It bought a plant in Liberty, S. C., plans to double its capacity, and to build a new warehouse in New Brunswick, N. J. Headquarters will be in New York City.

EF5

ing to  
, Tide  
of the  
s have  
media  
udgets.  
roducts  
er sup-  
duced  
0,000.

round  
a's un-  
n con-  
order  
The  
tamps,  
o meet  
tamps,  
the or-  
nce of  
n suit.

l 58%  
ne, up  
ational  
credit  
losses  
es-less  
e.

s been  
nc., of  
from  
5.

e ball  
Better  
advise  
ons of  
ged re-

lighter  
ffered  
iv. for  
as an-  
els in  
s start

y Un-  
estate  
pective  
ine is  
y, six-  
s out  
et his

served  
uch in  
sed its  
ught a  
double  
ware-  
Head-  
ty.

1, 1954

# Whatever the job . . . PERMACEL TAPE



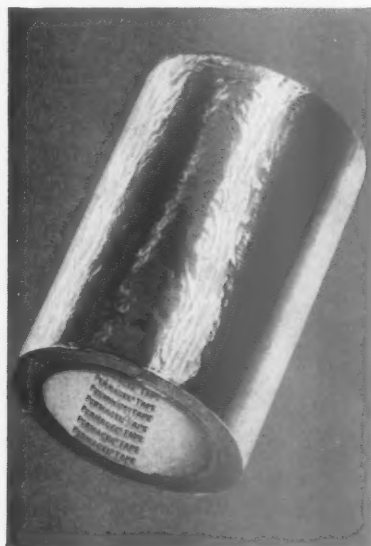
IT'S RESTFULLY QUIET IN THE LUXURIOUS DOUGLAS DC 7 . . . AS PLEASANT AS A QUIET EVENING AT HOME . . .



**VIBRATION NOISE IS LESS** because Permacel 12 Sound Damping Tape is at work in the noise vibration area. (circle)



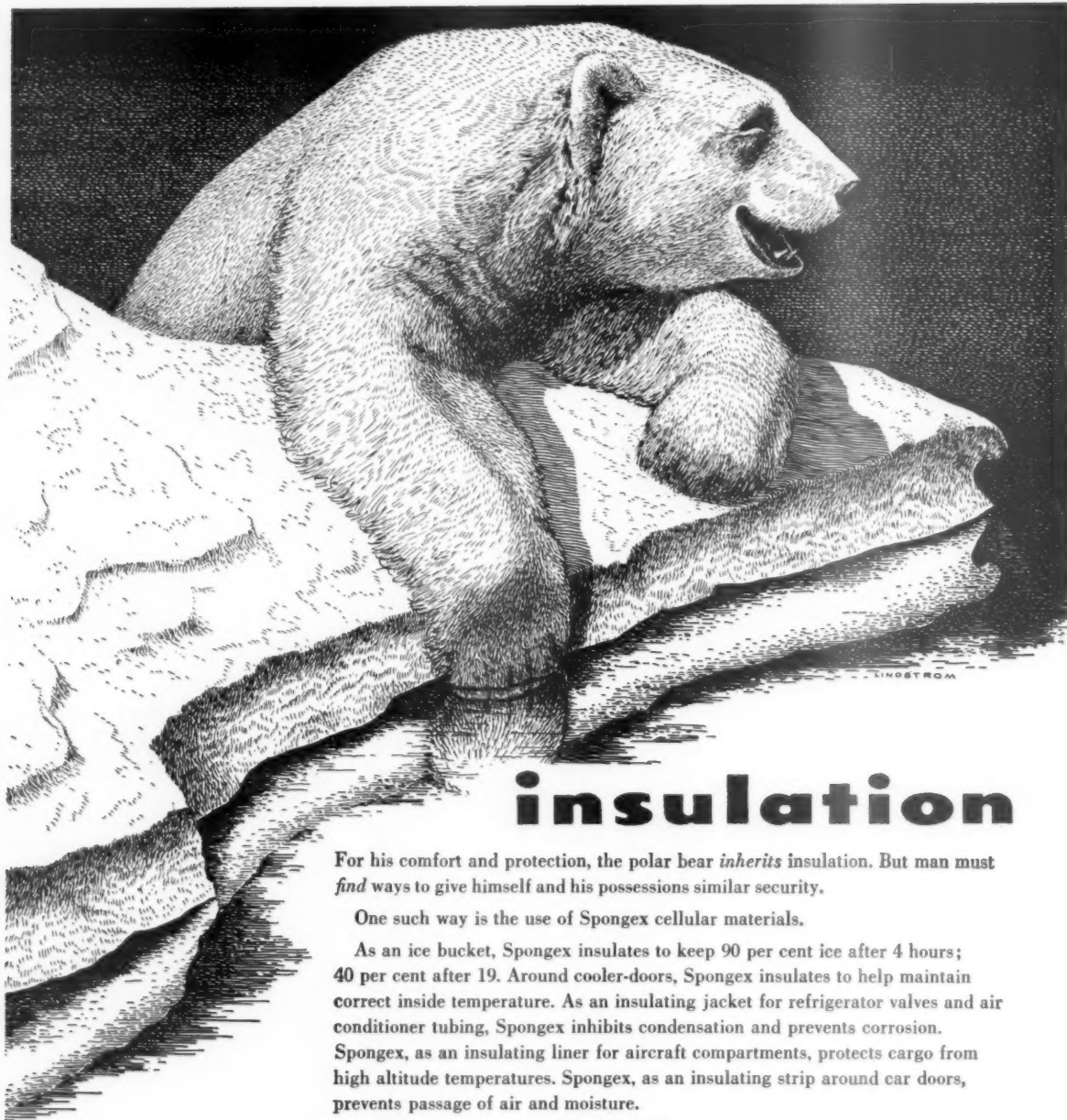
**QUICKLY AND EASILY**, Permacel 12 Sound Damping Tape is permanently applied to the interior panels of the plane.



**IN ANY METAL PANEL**, sound is deadened by this new Permacel Tape made of aluminum foil laminated to cloth.

## SELF-STICKING PERMACEL® TAPES

In our complete line, there's a self-sticking tape for every job . . . write Permacel Tape Corporation, New Brunswick, N. J.



## insulation

For his comfort and protection, the polar bear *inherits* insulation. But man must *find* ways to give himself and his possessions similar security.

One such way is the use of Spongex cellular materials.

As an ice bucket, Spongex insulates to keep 90 per cent ice after 4 hours; 40 per cent after 19. Around cooler-doors, Spongex insulates to help maintain correct inside temperature. As an insulating jacket for refrigerator valves and air conditioner tubing, Spongex inhibits condensation and prevents corrosion. Spongex, as an insulating liner for aircraft compartments, protects cargo from high altitude temperatures. Spongex, as an insulating strip around car doors, prevents passage of air and moisture.

These are just a few of the ways in which Spongex can be used for insulation. And insulation is but one of the many functions of Spongex cellular materials. Others are flotation, sound and vibration damping, shock absorption, sealing and cushioning. Perhaps you have a problem involving one of these; if so, write us, we'll be glad to help you.

'Nicer ice bucket

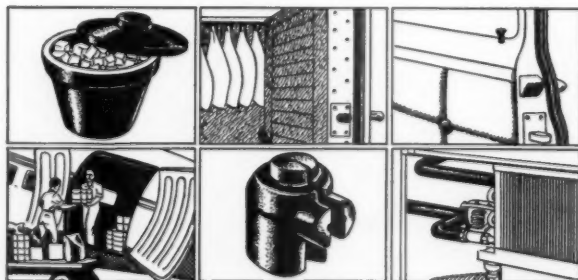
Cooler door gasket

Car door weatherstrip

Cargo-space lining

Freezer valve jacket

Air conditioner tubing



# SPONGEX®

cellular materials

THE SPONGE RUBBER PRODUCTS COMPANY

17 Derby Place, Shelton, Connecticut

Canadian Sponge Rubber Products, Ltd., Waterville, Que.



# PERSONAL BUSINESS

**BUSINESS WEEK**  
**SEPT. 11, 1954**



**You may not realize how much easier it is getting for you to build up a financial cushion for your retirement.**

Long-range planning on your part—with a sizable assist from the government and possibly your employer—will turn this problem into a comparatively simple operation.

**Think of your pension and Social Security as a nucleus around which to build for your future personal security. It's surprising to see just how big a nucleus they can be—thanks to the new laws.**

**Take Social Security first.** You can not only collect a top benefit of \$162.80 per month, tax-free, if you're not working. You can also get it if you are earning as much as \$1,200 a year in direct compensation.

On top of that, you can get almost unlimited income in other ways—deferred compensation, directors fees, royalties, profits from a partnership (so long as you are not working at it) without losing any Social Security benefits.

**The new tax law, too, has several provisions to make the retired executive's financial picture a lot brighter.** One of these is the retirement income credit, which didn't exist before. Under it, the retired man can get up to \$1,200 from pensions, annuities, rents, and dividends tax-free. (In certain rare cases, this income can go as high as \$5,333 tax-free.)

**Another change gives a considerable tax break on annuities.** Say you get \$1,100 annually on an annuity contract that cost you \$10,000. At the start of payments to you, your life expectancy is 10 years.

Under the old law, you would report \$300 as income each year for 12 years (3% of \$10,000). That means \$800 would be tax-free in each of those years. But in the 13th year, only \$400 would be tax-free—because by then you have recovered \$9,600 of the original cost. And from the 14th year on the entire \$1,100 would be taxed.

**The new law considers \$1,000 (your cost of \$10,000 divided by your life expectancy) instead of \$800 of the annual return tax-free.** So only the remaining \$100 is taxed each year as long as you live. You are never taxed on your full annuity receipts as you were under the old law.

**Finally, the new law's handling of dividend taxation gives considerable help in retirement planning when you own stocks.**

Under the old law, dividends were completely taxed. Now the first \$50 of dividends is not taxed—and the remaining amount is taxed at a lower rate. In 1954, this reduction is 4% on dividends received after July 31 of this year.

**Thus an individual in the 30% tax bracket who gets \$4,000 in dividends after that date would pay \$173 less in taxes this year than he did on the same amount last year.**

**All these factors taken together can ease the burden of building up for your retirement—depending, of course, on individual circumstances.** By further savings and investment in your earning periods, you can build a substantial subsidiary income to keep you and your family adequately in retirement. Mutual funds, stocks and bonds, and ordinary bank savings may give you all the extra you need—it's a matter of choice.

# PERSONAL BUSINESS (Continued)

**BUSINESS WEEK**

**SEPT. 11, 1954**

In addition, some authorities will recommend life insurance or annuity plans on the ground that you can coordinate them exactly with what you know you will get on retirement. Figure up Social Security benefits, company pension, income from other investments. If the amount is short, an insurance or annuity plan might make it up exactly.

Another course is to use U. S. savings bonds to cover the difference. By a sort of pyramiding, you can get a nice chunk of monthly income during retirement. Here's an example:

At age 35, Jones starts investing \$37.50 monthly for a \$50 bond. Between 45 and 55, these bonds mature. He adds \$25 to them, reinvests the money to get \$100 bonds. Between 55 and 64, he adds \$50 to the maturing \$100 bonds to buy \$200 bonds.

When he retires at 65, Jones then gets \$200 a month for 10 years as the \$200 bonds mature. For an actual investment of \$13,500, he collects a total of \$24,000.

Before your son or daughter goes off to college, check to see if your insurance covers their personal belongings away from home. Since policies differ considerably, you may not know. Your insurance agent can tell you quickly.

If you don't have such personal-property insurance, you can get it easily through your agent. The insurance business offers three types of coverage to cover losses by any member of the family, at home or away:

- Residence and outside theft policies. This extends burglary and theft protection to possessions in dormitories.
- Home fire insurance on contents extends up to 10% of the limits of the policy to fire protection on personal effects in dormitories.
- Personal property floater, which extends both fire and theft protection anywhere away from home. Usually this has a deductible feature applying to theft loss.

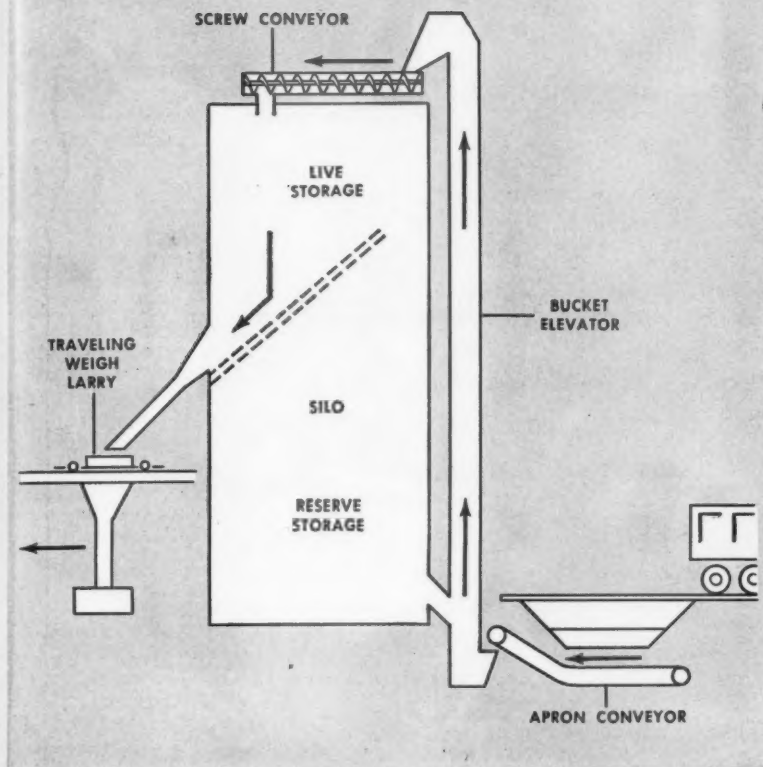
A good driver might get six times as much wear from his auto tires as a bad driver.

That's the conclusion of a survey by U. S. Rubber of tire wear in 37 cities throughout the country. The check was made on 15 makes of cars, four makes of tires, and five different tire sizes.

The survey showed a tread life expectancy that varied from 10,000 to 60,000 miles. Of all conditions affecting tire mileage—topography, climate, driving habits, and periodic inspections—the manner of driving was the greatest single factor.

Book stores and sporting-goods stores now have the 1955 edition of the Shooter's Bible, containing 500 pages of information on guns.

Note for golfers: Look for a new golf club that you can weight to your personal needs. Up to four magnesium weights can be put in the handle to get the right balance in your swing. The inventors claim proper weight gives smoother swing, greater accuracy and distance.



At S. C. Johnson & Son, Inc., Racine, Wis., Link-Belt bucket elevator raises coal to storage silo after it is dumped from trucks onto a Link-Belt apron conveyor. From elevator, coal is moved by a screw conveyor atop storage silo. Weigh larry delivers coal from storage silo discharge chute to any of three stoker hoppers.

## With a Link-Belt coal handling system, your boiler house can stop burning dollars needlessly with every ton of coal

**F**OR SMALL boiler house or large central station—there's *sound economics* in having Link-Belt furnish your entire coal handling system.

Link-Belt offers savings through its unmatched ability to engineer the right combination of equipment selected from its broad line of feeders, screw conveyors, bucket and Bulk-Flo conveyors, belt conveyors, apron and flight conveyors, carriers and all other related coal handling machinery.

This complete line of equipment for unloading, storing, reclaiming, conveying, elevating and feeding of coal—plus expert engineering based on wide experience—assures long, low-cost, low-maintenance operation.

Remember, too, Link-Belt accepts full responsibility for the complete design, manufacture, erection and satisfactory performance of the entire coal handling system.

In every segment of our American economy, you'll find Link-Belt playing an equally important role. Practically every raw material is transformed from its natural state to finished product with the aid of Link-Belt equipment.

Next time you have a job that requires the movement of materials or the mechanical transmission of power, call the Link-Belt office near you. If it involves coal handling, ask for 44-page Book 2410. Or write LINK-BELT COMPANY, Dept. AV, 307 N. Michigan Avenue, Chicago 1, Illinois.

# LINK-BELT

One source . . . one responsibility for materials  
handling and power transmission machinery

LINK-BELT COMPANY: Executive Offices, 307 N. Michigan Ave., Chicago 1. To Serve Industry There Are Link-Belt Plants and Sales Offices in All Principal Cities. Export Office, New York 7; Canada, Scarboro (Toronto 13); Australia, Marrickville, N.S.W.; South Africa, Springs. Representatives Throughout the World.

13,000



THREE DIED when brakes failed on this milk truck at Liberty, N. Y. Possible cause: Faulty brake diaphragm was a counterfeit.

## Bogus Parts Plague Industry

The village of Liberty, N. Y., was crowded with Saturday shoppers on that afternoon in late July when the 15-ton milk truck (above) came crashing out of the Catskill Mountains, down the main street. On the steep highway that leads into the town, the truck's air brakes failed.

It couldn't be stopped until it had smashed a dozen cars, killed three people, and injured 14 others. The driver lived, but he is still hospitalized.

When examiners looked for the cause of the brake failure, they found that one of the rear axle brake diaphragms had punctured in two places. A brake diaphragm is the guts of any air brake system. If it fails, the wheel to which it feeds air pressure loses braking power.

While it is not yet known whether the punctured diaphragm was the sole cause of the accident, it is known that the driver did not have the air pres-

sure he needed when he headed down the hill into the village.

• **A Phony**—One more thing is known about that accident. The punctured diaphragm was a counterfeit. It looked just like the diaphragm on the other rear wheel—which had stood up. Each had the trade mark of Bendix-Westinghouse molded onto its face. But Bendix-Westinghouse Automotive Air Brake Co., one of the big producers of air brakes and pneumatic equipment in the U. S., had not made the diaphragm that failed.

The trucking company that owned the truck hasn't said where it got the counterfeit diaphragm.

But Bendix-Westinghouse has known about counterfeiting for some time (BW—Mar. 27 '54, p. 33). Eventually, it accused Lawrence H. Johnson, head of Brakes, Inc., New York, of counterfeiting not only its brake diaphragms but many other items. The plaintiff has

secured a temporary injunction against Johnson's selling items purporting to be Bendix-Westinghouse products, and says that he has consented to a permanent injunction. The court has not yet ruled on the plaintiff's demand for an accounting of Johnson's profits, in connection with its suit for damages.

Bendix-Westinghouse has also obtained a permanent injunction against a Los Angeles customer of Johnson's who has been selling allegedly bogus air brake components—but who claims not to know they were counterfeit. It also has preliminary injunctions against other such customers in Chicago and Newark, N. J.

• **Electronics**—Bendix-Westinghouse is just one of many companies in the U. S. that has a bogus parts problem. In the electronics industry, you find counterfeits with just about every big name label on them—General Electric, RCA, Sylvania. One recent investiga-



tion in New York astonished even the investigators. They estimate that some 3-million bogus radio and TV tubes were sold in the city over a stretch of some 90 days earlier this year.

Two weeks ago, three police raids in Philadelphia and in nearby Delaware County, Pa., uncovered 750,000 counterfeit auto ignition parts bearing such brand names as Auto-Lite, Delco-Remy, and Ford. These were headed into the export market for sale in Europe and South America. Police estimate that the ring had forged and sold 2-million parts in the last three years.

• **Subtleties**—Some counterfeiters are less flagrant. Take the case of one victim, a manufacturer of automobile valve springs. He noticed a drop-off in sales, discovered that jobbers were buying springs from small producers for 25% to 30% less than he charged.

Nothing wrong with that, but the jobbers were passing them off to their customers as products of the troubled manufacturer, charging his list prices for them, and even identifying them with his parts numbers.

The jobbers didn't go so far as to slap the big manufacturer's trade mark on the springs. They didn't have to, because his parts numbers were so well known in the trade that any spring that went under the number 647 was assumed to be the well-known 647 that the big company had made for years.

Others are still more subtle. Take one West Coast carton manufacturer. He didn't make phoney radio tubes, didn't even make out-and-out phoney cartons.

Rather, he made small cartons for tubes that looked for all the world like the carton that a big name company used to package its tubes: same coloring, same arrangement of colors. But in the place on the carton where the big company's trade mark should go, he printed the words "National Brand." And around all four sides of the bottom of each carton, he strung the names of eight prominent tube manufacturers.

**Implication:** You were buying a big-name, national-brand radio tube. Actually, when you opened the carton, you might find a tube of one of those eight companies; then again, you might not—depending on your luck.

• **Tubes**—Then, there are the outfits in the TV tube "re-building" business. They buy up worn out picture tubes, pump some new gas into them, peddle them as new. When it's polished up, the tube looks like new—and it still has the big-name trade mark on it. Actually, of course, the new dose of gas does nothing more than extend its life for a few weeks.

In every case of counterfeiting, the victim company stands to lose three different times. First, it loses the initial



## There when you need it— a report that's invaluable!

When unforeseen circumstances interrupt the schedule of a carload of freight, the lack of information on its whereabouts is a worry to shippers and receivers.

This worry is eliminated, however, for users of the Baltimore & Ohio's Sentinel Service on carload freight. Through its "Automatic Records" feature, both shipper and receiver are immediately notified of schedule interruptions and reforwardings—a typical example of B&O's understanding of shipping men's problems.

Remember, too, Sentinel Service provides *siding-to-siding* dependability—based on published schedules. No wonder shippers are enthusiastic!

Even if your plant is not on the B&O, you can benefit by Sentinel Service, for it is applied to your car while on B&O lines. *Ask our man!*



# Baltimore & Ohio Railroad

Constantly doing things—better!

## Positive solution of GEAR PROBLEMS



**Sier-Bath  
PRECISION  
GEARS**

Ask for  
Our Free Professional Gear  
Engineering Consultation and  
Precision Gear Manufacture that  
is making machinery more  
productive.

Send coupon below.

## SLASH Direct-Drive COSTS



Only 7 parts

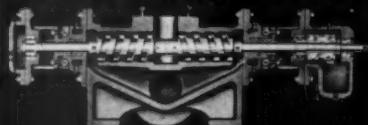
No nuts, bolts,  
flanges

Assembled, uncoupled  
in seconds

Revolutionary! 3/5 usual size,  
1/2 usual weight—greatest bore  
and horsepower capacity. Cut  
coupling costs . . . design and  
assembly costs . . . operating and  
maintenance costs. Use coupon  
below.

**Sier-Bath  
Flexible  
GEAR  
COUPLINGS**

## Longest Life Pumping Thick, Non-Lubricating Materials



Cut costs of pumping cellulotics,  
tars, soaps, syrups, etc. New  
"bracket" design features no  
metallic contact  
in rotor compart-  
ment, no rotor  
distortion, faster  
servicing! Send  
coupon.

**Sier-Bath  
External  
Gear & Bearing  
SCREW  
PUMPS**

**Sier-Bath GEAR & PUMP CO., Inc.**

9258 Hudson Blvd., North Bergen, N. J.

Please send (without obligation) information on:

☐ Gears ☐ Couplings ☐ Pumps

Name.....

Title.....

Company.....

Address.....

Founded 1905

Member A.G.M.A.

**"... sometimes only an ex-  
pert can spot a counterfeit  
at a glance . . ."**

COUNTERFEIT starts on p. 182

sale that the counterfeiter makes. Then, when the counterfeit part bounces, the reputed manufacturer hears about it. Unless he suspects something, he replaces the part and charges nothing for the replacement. Last of all, when the customer goes out to buy again, he is apt to remember that first bad part, decide to try somebody else's this time.

• **Solutions**—Unless he wants to spend a lot of time and money in litigation, there isn't really much that the big manufacturer can do to stamp out the counterfeiter. He can keep an eye out for him, threaten him with a court suit when he catches him.

If the counterfeiter doesn't fold up after the threat, the big company will probably take him to court. But he really doesn't want to. He usually cannot collect damages, because the operator is too small to have much capital.

And a court fight throws a bright light on the company's problem over counterfeiting. The public hears about it and shies away from the company's product until it is convinced that the counterfeiters are out of business and there is no longer a danger of being stung.

Of course, the danger of picking up a counterfeit name brand product is nil if the purchaser goes to a legitimate dealer. The dealer isn't going to risk the loss of his franchise by handling goods that are not authentic. But people don't always reason that way. Instead, they get shaky about the product—no matter who's selling it.

• **Trade Mark Group**—One organization that fights hard to keep counterfeiters on the run is the United States Trade Mark Assn., New York. Almost every major company in the U.S. that owns a trade mark belongs to USTMA and uses it keep up with the latest tricks of the counterfeiters.

USTMA acts as a legal counsel for its 220 members, also as a clearing house for goings-on in the field. One company hears about a shady operator. It lets USTMA know about it. USTMA passes the word around to the members who might be damaged.

Through USTMA, trade mark attorneys can point out loopholes in the trade mark laws to congressmen, and recommended changes in the laws that will close up the loopholes.

Much of the trouble that U.S. companies have with counterfeit products pops up outside the U.S. In Asia, for example, counterfeiting of shirts, lighters, pens, and other products has been a

problem for years (BW—Jul. 4 '53, p98). In Korea just last week, three of the biggest battery manufacturers in the U.S. were trying to trace down a ring that has been operating there for months. Somehow, the counterfeiters got hold of a batch of small military batteries. These carried nobody's trade name, only the identity of Army Ordnance.

The counterfeiters made up wrappers that looked like those you see on the companies' commercial products. They put the wrappers on the military batteries and sold them through civilian channels.

The problem has two sides overseas. First, there is the problem of selling a legitimate product in a market abroad that is flooded with counterfeits. Sometimes only an expert can tell the difference at first glance.

Second, some U.S. manufacturers run into overseas counterfeiters who are selling their products right under the nose of the home office. The counterfeiter makes his product abroad, smuggles it into the U.S., turns it over to small distributors who peddle it here as the real thing.

• **The Damage**—It is impossible to tell how much damage is being done to U.S. industry today by counterfeiters at home and abroad. Even the companies that are being hurt don't know how to measure it, because some operators get in and out again before they are caught. Sometimes you aren't aware of one until months after he has done his damage. And even then, you have to guess at his production.

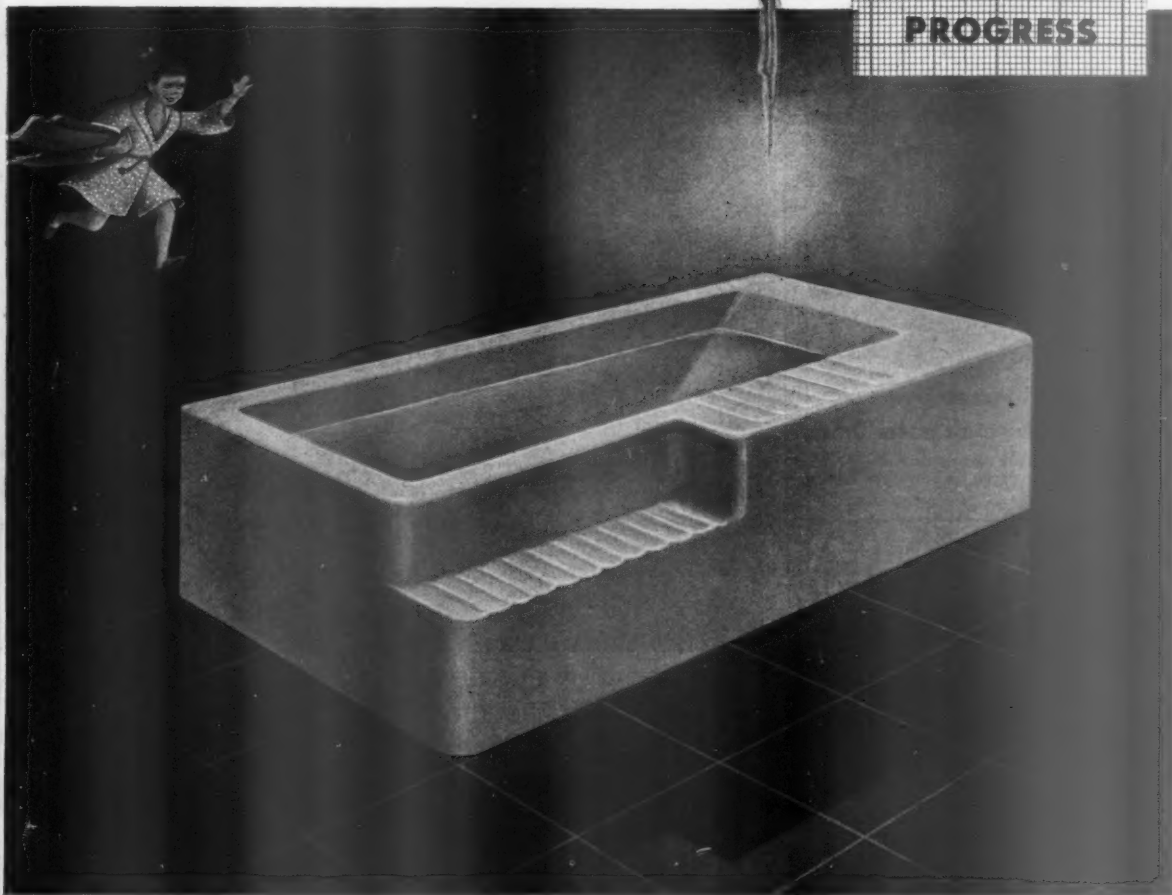
One of the big manufacturers of baby powders and lotions was being taken by a woman who was making products under the company's label and selling them door-to-door. It took the company a couple of years to catch on, and that happened only because somebody noticed a sharp dip in sales in the small area that the woman was able to cover.

Just about any product whose appearance is easy to duplicate seems to be an easy mark for the counterfeiter. He won't make anything that is too complex, because it costs him too much. The ideal is a product that can be made in a hurry, that looks like the real thing, and that brings a lot of money in exchange.

An outfit on the West Coast came close to that ideal before it was caught. It was making bogus poker chips. For a while, a few gambling houses were exchanging cash for the counterfeit chips. Now, a few houses are having their chips made with a fluorescent powder mixed in with the plastic. When you take the chips to the cashier's window, he can tell whether you bought them on the premises or carried them in in your pocket.

**Q.** Could chemical research develop reinforceable liquid resins to produce strong, light plastics that could be "worked" easily and inexpensively—especially in large sizes?

**A.** **THE "SYRUP" THAT PUTS NEW PLASTIC SHAPES AT YOUR FINGER TIPS**



Here you see one unusual example of what the "syrup," known as polyester resins, makes possible in design and production.

By combining G-E polyester resins with glass fiber or other reinforcing material, you can mold, simply and easily, large or small plastic shapes of your choosing.

For example, you can produce lightweight bathtubs\* that would be warm to the touch, colorful and pleasing to the eye, and resilient to falling objects . . . or, auto bodies and other housings that cannot dent like metal, that resist heat, cold and corrosion.

At low fabricating costs, you can build bathtubs or auto bodies, luggage or aircraft parts—just about anything

\*G. E. does not manufacture such products, but merely supplies the polyester resins.

you want. And, you can readily vary toughness and flexibility as you wish.

This is progress for all, through General Electric Chemical Progress.

★ ★ ★

For new developments in Plastics Compounds, Silicones, Electrical Insulating Materials, Industrial Resins and Varnishes, Plastics Laminating and Molding . . . write for new "G-E Chemical Products" booklet (CDG-101) to: **CHEMICAL AND METALLURGICAL DIVISION, General Electric Company, Sect. 1400-3A, Pittsfield, Massachusetts.**

*Progress Is Our Most Important Product*

**GENERAL  ELECTRIC**



# invest

...in working convenience  
for your employees. Place an adequate  
number of Apsco Pencil Sharpeners  
in easy-to-reach locations.

Only Apsco produces pencil sharpeners  
engineered for specific office, factory,  
and school applications. Specify Apsco  
Pencil Sharpeners, Staplers and Punches  
when ordering from your stationer.

Descriptive literature available on request.



APSCO DEXTER NO. 3

**Apsco products inc.**

P. O. BOX 840, BEVERLY HILLS, CALIF.  
FACTORIES: ROCKFORD, ILL.; TORONTO, CANADA

**DO YOU Roll  
FLEXIBLE  
MATERIALS ?**



**Dyken Automatic Rolling  
Machines give you important  
time and labor savings on**  
SCREENING • LAMINATED PAPER  
TEXTILES • ROOFING • RUGS  
• WALLPAPER • CARPETING •  
PLASTIC • RUBBER • LEATHER  
FELT • LINOLEUM • CANVAS  
CORK • PADDING • OILCLOTH  
BURLAP • INSULATION  
**and other pliable materials !**

**NOW YOU CAN** roll up more  
lengths per hour...with less labor!  
Rolling and paper-wrapping handled  
in one speedy operation. **DYKEN**  
Automatic Rolling Machines (fully  
patented) available for all material  
widths and lengths. Push-button  
operation permits using unskilled  
help. Tight, neat rolls require no  
center core or pole. Save time,  
labor, shipping and storage space.

**WRITE FOR LITERATURE AND  
RECOMMENDATIONS** — Send details  
of your problem for expert analysis  
and advice. No obligation.

**DYKEN**

**MFG. CO., Inc.**  
732 Indiana Ave.  
West Bend, Wis.



**BURROUGHS CORP.** is counting on new \$1-million assembly line for 10-key adding  
machines as big competitive weapon. Here girl uses three conveyors at once.

## Tougher Competition

This month Burroughs Corp. will start delivering the first of a new line of 10-key adding machines assembled on the highly automatic production line above. To make room for what it terms the most modern assembly line in the industry, Burroughs dropped a high-keyboard accounting machine that it had been making for 20 years.

The new assembly line, the new adding machine, and the discarded older product are all evidence that Burroughs' drive to regain the number one spot in the office equipment industry is getting into high gear. It's currently in fourth place behind International Business Machines Corp., Remington Rand, Inc., and National Cash Register Co.

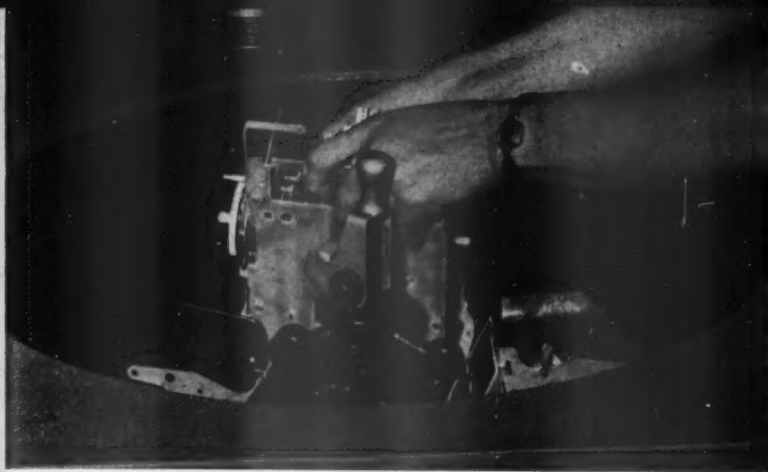
The 10-key adding machine (BW-Jul.24'54,p143) is the eighth new product Burroughs has introduced this year.

Six of the eight take the company into new fields, new for it and where the competition is already firmly entrenched; two are revamped versions of standard accounting and adding machines.

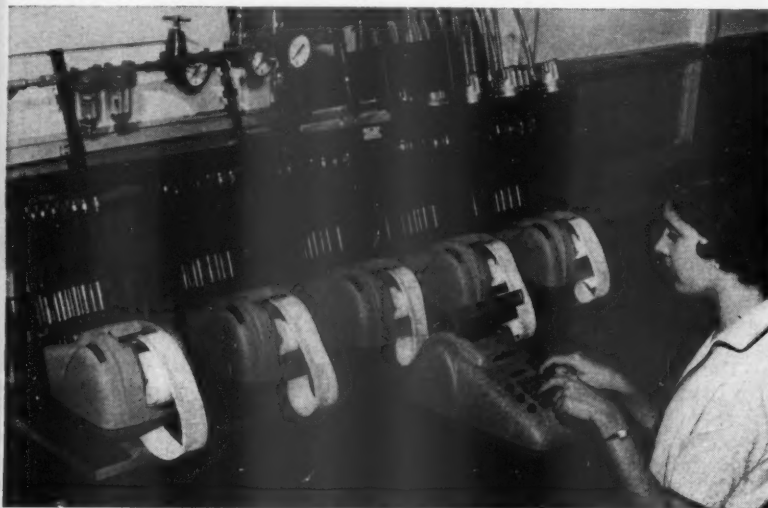
The decision to develop some of these new products was made eight years ago when John S. Coleman became president. The plans were formalized two years later when the company drew up a 10-year product expansion program. Since then more than \$25 million has been spent on product research and modernization.

The new products this year are the beginning of the payoff. They also indicate the direction of Burroughs' attack. To broaden its stake in the electro-mechanical field, the company has announced these products:





**SPIN-DRY DEVICE** for washing the machines in oil before carriage and motor are attached is a feature of the ultramodern assembly line.



**EVEN TESTING** has automatic aspects. When girl runs dummy machine, keys on 10 to 20 real machines are hit too. It's Burroughs' answer to . . .

## Modern Office Equipment

• The new 10-key adding machine. It may make it possible for Burroughs to double its adding machine sales. That's because industry sales are now split about 50-50 between full-keyboard machines (which Burroughs has always made) and the 10-key version.

• The Micro-Twin (BW-Jun.19 '54, p124). It's a portable unit to film or read microfilmed documents manufactured by Bell & Howell Co. and marketed by Burroughs. It brings the company into the field of preserving records.

• The Series G high-speed printing and accounting machine. This operates at more than 43,000 characters a minute. It brings the company into the punch card business.

While broadening its products in fields where the competition is strong,

Burroughs is also keeping its eye on the slow trend toward replacement of electro-mechanical equipment with electronic devices. That's why it has introduced these devices:

• A low-cost electronic computer (BW-May15'54,p75). Production next spring will be about 100 units and the company will work with purchasers to find the best uses.

• A color-test tube for television sets. This is a byproduct of research on electronic office machines, but may be a huge seller. Burroughs hopes to sell it to color TV manufacturers for installation in each set.

• An electronic unit for scanning the serial numbers of traveler's checks. It reads 35 characters per second and punches cards at the rate of 120 per minute.

# New FREE Booklet



- First of its kind!
- Written especially for executives!
- Tells how to get the most from your Offset Duplicating Department!
- Fully illustrated!

**SEND TODAY** for this big fact-packed handbook. It explains in non-technical language *exactly* how to get the most return from the valuable floor space allotted your printing department. Suggests new methods to improve printing quality and make better use of existing equipment. Shows how "3M" Presensitized All-aluminum Photo-Offset Plates can save time and money for you. Thousands of executives have profited from reading earlier editions of this helpful handbook. Send for your copy today—no cost or obligation, of course!

--- CLIP and MAIL! ---

MINNESOTA MINING & MFG. CO.  
St. Paul 6, Minnesota BW-94

Please send me a free copy of the new edition "Executive's Manual." I understand there is no cost or obligation.

NAME \_\_\_\_\_

TITLE \_\_\_\_\_

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

## ALL-TIME Highlights of Sport



The only game bird that breeds in every one of the United States, the rocket-fast and elusive Mourning Dove can change his direction at lightning speed. He's an olive-hued beauty who cruises at 45 miles an hour, can streak to over a mile a minute in just a few whistling beats of his wings. A challenge to every field hunter's skill, he gets top billing on any list as the sportsman's most demanding target.

A stand-out in another field is . . . *Atlantic Bond*: 12 of America's top railroads, 7 of the 8 largest book publishers and 12 of the country's leading carpet mills specify clean, clear, *Atlantic Bond* paper for better looking business forms or letterheads. Join the leaders: specify *Atlantic Bond* on your next order.

MADE BY EASTERN CORPORATION, BANGOR, ME.

# Atlantic Bond Paper *for Business*

See the beautifully illustrated Record Sheet of "America's Favorite Upland Game Birds". Ask your printer or write on your letterhead to Eastern Corp., Bangor, Maine.

The 60-Million Tons of Air Pollution  
Are Spiked With These Toxic Substances

Effluent Lb. per Day

Sulfur dioxide	760,000
Fly ash and other solids	238,350
Unidentified hydrocarbons	150,000
Hydrogen	13,000
Xylene	11,000
Chloroprene	9,800
Vinyl chloride	2,600
Styrene	2,175
Butadiene	2,130
Acetylene	2,000
Hydrogen chloride	1,900
Monovinylacetylene	1,400
Mineral spirits	700
Acrylonitrile	200
Higher aldehydes	75
Ethyl alcohol	25

## Air Pollution on the Scales

These rather frightening statistics appeared one day last month in a lengthy report on the air-pollution problem at Louisville, Ky. Battelle Memorial Institute had spent two years on intensive research, at a cost of about \$100,000 to local industry, to get the facts. The date is significant: It was 10 years (and \$10-million) earlier, that Louisville's fight against dirty air had begun in earnest.

Smoke has been a bother in Louisville for a long time. As far back as 1819, complaints appeared in the local press about "the foul and pestilent airs of a pent-up city." Industrialization made the problem immeasurably worse, but the people lived with it, and gave it little thought beyond passing a few vague ordinances to control smoke.

• **Rubber**—Then the government got into the synthetic rubber business in 1942. Synthetic rubber plants began to spring up on the city's southwestern fringe. The area became known as Rubbertown. By 1944, Louisville's West End—a residential district normally downwind from Rubbertown—was up in arms.

Residents complained of an intolerable blanket of dust. They reported that their eyes burned, that their noses and throats were irritated. Foul odors had become a serious nuisance. The culprit, said the West End, was Rubbertown, particularly the plant of Na-

tional Carbide Co. whose tall stack wore a yellowish plume, both day and night.

The hue and cry from the West End prompted the Board of Health to direct National Carbide to shut down. The order was later rescinded. In 1948, again at the West End's urging, the city sought a federal injunction to close the plant. The case fell through because of insufficient evidence that the plant was a menace to life and property. Other court cases followed, but always the result was the same: insufficient evidence.

National Carbide and its neighbors were not twiddling their thumbs while all this was going on. They had taken many steps to trap whatever matter might be causing trouble in the West End. Smoke output was eventually cut by 80%, fly ash by 40%. But this didn't pacify the neighbors. Other cities coined the word "smog" for polluted air. In Louisville's West End, it was and is "carbide dust."

• **Call for Help**—Quite possibly part of Louisville's problem, like that of many other cities, is more psychological than real, but the fact remains it is a problem. In 1952 Rubbertown industries decided to hire Battelle to get the answers. The institute was directed to find out: (1) what impurities were present, (2) where they came from, (3) whether pollution was worse on some



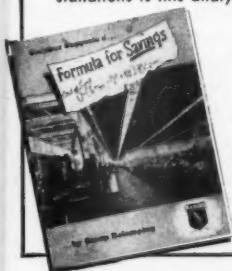
**LAMPS, FIXTURES, AND WIRING SUPPLIES** for any lighting need — indoors or out — can be promptly supplied by your local Graybar office or warehouse.

A single, convenient source for *everything electrical* means important automatic savings in time and purchasing department paper work.

## How BETTER LIGHTING boosts efficiency

### A New Formula for Savings — GET YOUR FREE COPY!

Typical of the helpful information available from Graybar on all kinds of electrical installations is this analysis of savings possible through group lamp replacement. Many plants have already cut 60% or more from relamping labor costs. Send for your free copy—it will help you estimate potential savings in your plant.



- up to 10.5% more production with less spoilage.
- up to 32% reduction in accident frequency.
- up to 75% savings in lamp maintenance costs.
- 5.5% (and more) increase in clerical output.
- up to 200% annual return on lighting investments.

These are some of the proved dividends paid by careful investment in better seeing conditions. Employees work better and are less fatigued—you reap the results of increased efficiency.

As distributor of the nation's most complete selection of lamps and lighting equipment, Graybar offers you comprehensive help in planning fluorescent, incandescent, or mercury vapor systems best fitted to your needs. Impartial recommendations by Graybar Lighting Specialists are made only after careful consideration of both initial and operating costs—you can be sure of light that is properly applied and of correct intensity.

400-29

**CALL GRAYBAR FIRST FOR...**

**GraybaR**

**ELECTRIC CO., INC.**  
420 Lexington Ave., New York 17, N. Y.



IN OVER 110 PRINCIPAL CITIES

all stack  
day and

West End  
to direct  
rn. The  
n 1948,  
ing, the  
to close  
ugh be-  
that the  
property.  
t always  
ient evi-

ighbors  
os while  
d taken  
matter  
e West  
ally cut  
But this  
Other  
for pol-  
End, it

ly part  
that of  
ological  
it is a  
indus-  
get the  
directed  
es were  
om, (3)  
n some

11, 1954





He sharpened his pencil  
and cut fuel costs **47%**

Irked at furnace fuel costs, this industrial executive put the finger—and the pencil—on the BTU Burglar's persistent thefts—billions of BTU's worth thousands of dollars per year.

**This is a typical example. A steel casting plant had two similar annealing furnaces side by side, with similar operating conditions. They lined one with insulating firebrick—and saved \$3,864 in fuel costs.**

Why do lightweight firebrick save you money on fuel? Their lightness is due to millions of tiny, insulating air cells. These cells keep the heat *inside* the furnace where it works for you, instead of letting it escape.

The lighter the brick, the better it insulates and the more you save on fuel. The lightest of all are B&W Insulating Firebrick, success-proved in thousands of furnaces for durability as well as high dollar savings.

Wouldn't it be well worth your time to discuss insulating firebrick with those responsible for your furnace operations? For details, call in the local B&W Refractories Engineer or write directly to B&W.



R 507

days than others, and (4) what could be done about it.

The sponsoring companies were National Carbide Co. (Div. of Air Reduction Co., Inc.), Carbide & Carbon Chemicals Co., E. I. du Pont de Nemours & Co., Inc., B. F. Goodrich Chemical Co., Kentucky Synthetic Rubber Corp., Louisville Gas & Electric Co., Louisville Refining Co., Ford Motor Co., and Reynolds Metals Co. Each of the sponsors operated plants in or near Rubbertown.

Battelle's task was not easy. Louisville is a city of half a million people, with thousands of businesses and factories, tens of thousands of cars and trucks. From all these sources, polluting elements rise into the air. But what is "the air?" Battelle scientists, for their study, figured that it was about 60-million tons of air spread out over a 60-sq. mi. area.

Once the limits of the area had been set, Battelle scientists set out to find polluting elements and to decide who put what in the air. That sounds like merely a challenging detective job. It turned out to be much more.

• **Fields of Doubt**—Very little is actually known about air pollution. Scientists are not sure what is in the air, what happens to various chemicals after they get into the air, and what effect the chemicals and dusts have on health and property. Machines for determining many of these unknowns have not yet been devised.

In the face of these handicaps, Battelle went to work in Louisville. Sampling stations were set up at 56 places, most of them in the West End. Hundreds of samples were taken over the two years, both upwind and downwind from Rubbertown. When the job was done, researchers had the statistics in the table. Except for sulfur dioxide, which represents the output of the whole city, most of these chemicals came from Rubbertown exclusively. But Battelle feels that these results are inconclusive and will remain so "until the important contaminants have been positively identified and their characteristic levels and distribution established."

In other words, you can't fight a phantom. You've got to know what you're trying to suppress and control. Up to this point, Battelle is not positive who the culprit is. Even supposing you could label Quantity X as a cause of a given problem, your troubles are not over. Would Quantity X-1 or Quantity X-2 still be a problem? Battelle doesn't know because "as yet, few definite standards have been set up as to the maximum allowable concentration of various pollutants from either a nuisance or a health standpoint. . . . An air pollutant can only be judged relatively."

## PRODUCTION BRIEFS

The Atomic Energy Commission is considering a \$40-million expansion of its uranium-producing facilities in the St. Louis area. If the expansion goes through, AEC may contract with Mallinckrodt Chemical Works to operate the new facilities.

The fastest propeller-driven plane in the world made its first flight last week. It's a Constellation-type aircraft, powered with four Pratt & Whitney 5,500 hp. engines. The U.S. Navy has backed its development. The plane will be used for evacuation of personnel and cargo. It cruises at 440 mph.

**Auto production:** Chrysler's output last month—off because of changeovers—was 39% below July. GM's was up 6%, Ford's up 3%. Compared with August 1953, Chrysler dropped even more. Its production last month was 60% below a year ago, while Ford's was down 13%, and GM actually went up a little —3%.

Alcoa announced a \$4-million expansion program last week for its Vernon Works in Los Angeles. The company will build a new forging plant to press out parts for wings, fuselages, and engines of supersonic jet fighters and bombers.

A new way to work with aluminum was announced last week by the Consolidated Iron-Steel Mfg. Co., Cleveland. The company says it can take a 3-in.-thick plate of aluminum, fabricate it, and weld it. This could mean that plate aluminum will replace weaker cast aluminum in many applications.

Engineering capital of the World: Pittsburgh is still trying to take the title away from New York (BW—Dec. 5 '53, p. 51). Late last year, Pittsburgh businessmen offered to put up \$1-million for a new headquarters. Other cities matched that. By last week, Pittsburgh said it had pushed its offer to \$1.5-million.

More than 60-million lb. of chemicals a year will be produced at the new Texas City plant of Carbide & Carbon Chemicals Co., a division of Union Carbide and Carbon Corp. The plant will be in operation soon. The company says it will turn out many new synthetic organic chemicals never before produced by UCC. These will be used to produce such things as low-temperature lubricants and greases, coating resins, oil additives.





## Wanted: 341,000 More Classrooms

Schools that were thought to be adequate a few short years ago are bursting at the seams as our youngsters, now about 35 million strong, flock back to their arithmetic and geography. As the new school year gets underway, our nation's schools need additional facilities for about 9,200,000 pupils, according to the U. S. Office of Education. Figuring an ideal average of 27 children to the classroom, we face a tragic shortage of 341,000 classrooms alone.

We're simply not gaining in the race to build enough schools. Population is outstripping the gain in new construction and the expansion of existing buildings. In just six years there will be over 40 million children in schools.

The overcrowding problem which plagues local school boards is being dealt with in various ways. In rural

areas a happy solution is often found when several neighboring areas join forces to build a consolidated school, far better and more spacious than each locality could provide on its own. An outstanding example, shown above, is the Palisades High School in Bucks County, Pa., about 40 miles north of Philadelphia.

Of streamlined, one-story design, it is built around an interior court so that sunlight can flood all classrooms. More than 600 children, from seventh through twelfth grade, arrive in a fleet of fifteen buses, converging from five surrounding townships. Here they enjoy advantages never dreamed of when

they were crowded into one-room country schoolhouses: well-lighted, functional classrooms; modern cafeteria, fully equipped auditorium and gymnasium; laboratories and shops.

Here, as in so many of today's new schools, the architects used Bethlehem open-web steel joists to speed construction and keep costs down. Strong and fire-resistant, these lightweight steel members span the large areas of auditoriums and gymnasiums, eliminating interior supporting columns. And they help architects to stretch tax dollars farther in planning the attractive schools so badly needed today, and in the years ahead.

# BETHLEHEM STEEL





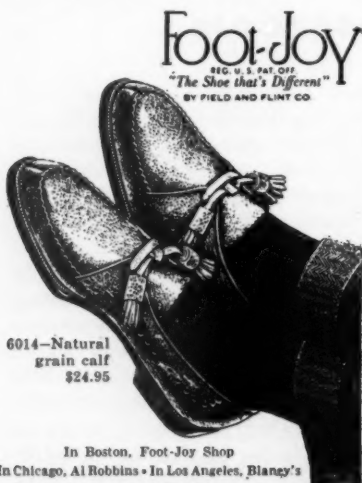
Gardening in an Orlyt Greenhouse is a great recreation. Doctors prescribe it. In fact, they are our best customers, themselves. Prefabricated materials are only \$339 for an 8½ by 10 ft. Orlyt ready to connect to your foundation and home.

Send for catalog 3-S-1.

Agency and dealer inquiries invited. Convenient terms. No down payment—3 or more years to pay.



aristocrat of shoes...



6014—Natural grain calf \$24.95

In Boston, Foot-Joy Shop  
In Chicago, Al Robbins • In Los Angeles, Blancy's  
In New York, Foot-Joy Shop, 417 Madison Ave.

write for free booklet  
FIELD AND FLINT CO., Brockton 68, Mass.

clues

are business opportunity advertising in  
BUSINESS WEEK

## NEW PRODUCTS



### Egg-Packer Is No Cluck

The egg-packing machine shown above can do enough work in an 8-hr. day to keep up with 100,000 busy chickens. It can size, sort, count, and package up to 129,000 eggs per shift. And it has an electrical memory unit that keeps track of every single one of them.

The memory knows how each egg has been classified by the person who inspected it for both interior and exterior quality. It knows how much each egg weighs; the machine does the weighing. It even knows which conveyor cup is carrying which egg. And it can tell you which of six inspectors did the inspecting.

The unit was designed and built by the Food Machinery & Chemical Corp.'s Packing Equipment Div. in cooperation with the Poultry Producers of Central California. The manufacturer says that the first installation has just been completed at the Modesto (Calif.) branch plant of PPCC.

Because much of the work that ordinarily has to be done by inspectors—the industry calls them candlers—can be handled by the machine, each candler can now look at twice as many eggs every day. And at the packaging step, one operator can keep the carton chutes filled with enough cartons to handle the packing machine's rapid output.

A separate counting system shows in hours and tenths of hours the time each candling station has run, as well as the total number of hours the whole unit has been in operation. Another set of counters indicates the daily total of eggs inspected by each candler.

• Source: Food Machinery & Chemical Corp., San Jose 6, Calif.



### Highway Fog Chaser

The New Jersey Turnpike Authority is going to put four of these big aluminum gadgets to work chasing fog. The manufacturer, Diesel Power Inc., calls them Weather-Masters, says any one of them can sweep away fog from as far out as 1,000 ft.

Jersey will use three near the Newark Airport, where fog is especially a problem, and another farther south on the Turnpike, east of New Brunswick.

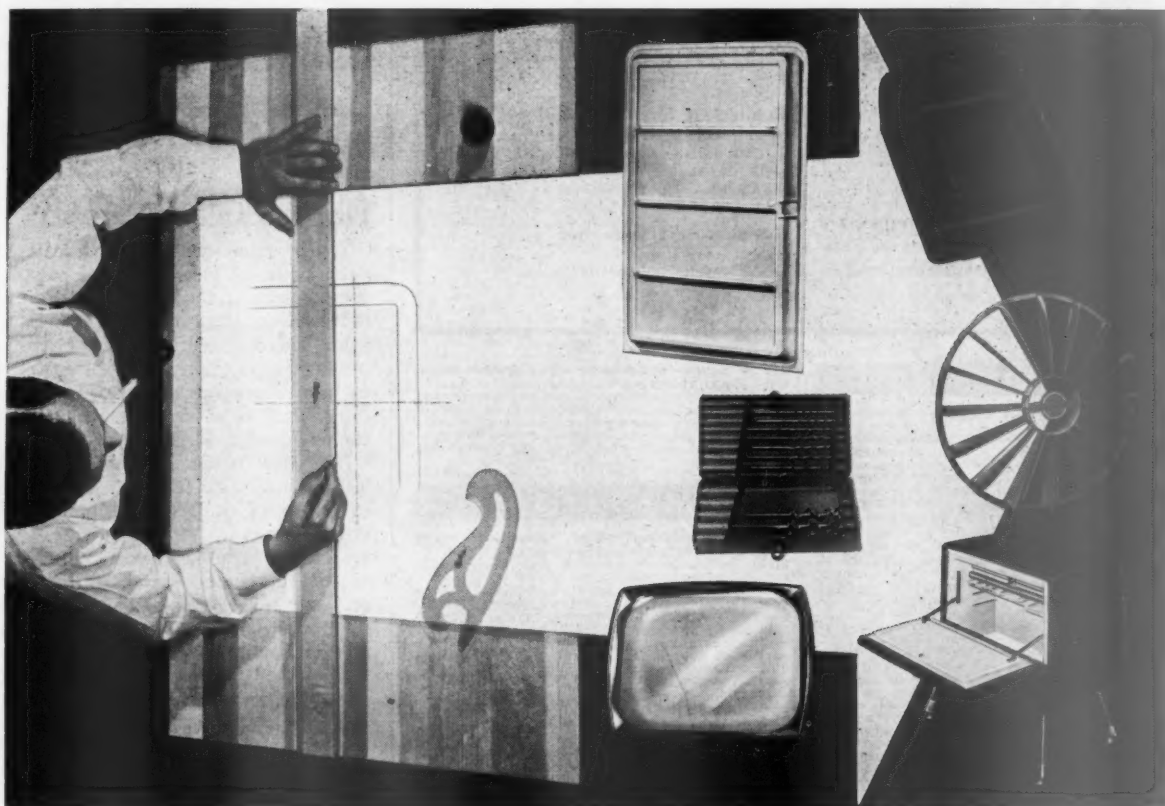
Originally, the Weather-Master was designed to fight frost. It is being used in a number of citrus groves in California. When the temperature drops near the danger point, the Weather-Master goes into action. The big propeller at the top pulls warm air down toward the ground. The inverted saucer spreads it out over the ground.

Late last year, Diesel Power decided to try out the same idea with fog. It set up a tower on the highway that runs past its plant at Greenville, Pa., about 70 mi. north of Pittsburgh. It has been in operation there since October.

• Electric Eye—The New Jersey installations will be controlled by photoelectric cells, placed about 600 ft. from the base of each tower. Each cell will look at an infra-red light source, about 75 ft. away from it. So long as the cell sees the light, nothing will happen. But when a fog rolls in and the cell loses sight of the light, a switch at the tower will be thrown on automatically, and the propeller will start to spin.

A 28-hp. motor will whirl it around at 1,200 rpm. Warm air will swarm down over the diffuser at the rate of more than 1-million cu. ft. an hour—and a little comes through the diffuser

DOW



## STYRON 475 PLASTIC SHEET PROVIDES EXCELLENT FORMABILITY

*Intricately designed products can  
be formed with exact detail . . . and using  
amazingly inexpensive molds!*

Styron® 475 plastic sheet offers a desirable rigidity in both the sheet material and in the finished product. Yet it quickly conforms with the surface of the mold when it's heated and under low pressure!

This means that with versatile Styron 475 sheet you can produce parts intricate in detail with greater assurance of faithful reproduction. You can accomplish this at low cost . . . even on low production runs and with large area

parts. For Styron 475 sheet is vacuum or drape formed, and therefore requires only inexpensive molds.

The physical properties of Styron 475 give products a competitive edge in sales, too . . . like high-impact strength for added toughness; bright, sparkling color for eye appeal; light weight; and a surface that's easily cleaned. And it has *good dimensional stability even in high humidity*, and excellent electrical properties.

Investigate Styron 475 sheet today. Compare its formability with any other plastic. See if it can't help you produce a new or better product at lower cost. For further information, write THE DOW CHEMICAL COMPANY, Plastics Sales, PL 437P, Midland, Michigan.

THE DOW CHEMICAL COMPANY, Plastics Sales, PL 437P, Midland, Michigan  
Please send me properties data on Styron 475 sheet and supply sources in my area.

Name \_\_\_\_\_ Title \_\_\_\_\_  
Company \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

you can depend on DOW PLASTICS

DOW



# clues: TO THE SOLUTION OF MANAGEMENT MEN'S PROBLEMS.

Published—every Saturday.

Closing date—12 days prior issue date.

Rates—\$5.85 per line, minimum 2 lines. Half rate applies to Position Wanted classification only.

## Replies to Box Numbers

Address to office nearest you  
NEW YORK: 330 W. 42 St. (36)  
CHICAGO: 520 N. Michigan Ave. (11)  
SAN FRANCISCO: 68 Post St. (4)

## Business Service Section

Card Advertisements—  
Write for Special Rates.

## EMPLOYMENT

### Positions Vacant

**Area Accountant Permanent position with gas utility operating in 4 states. Utility customer accounting experience necessary. College degree in accounting desirable but not essential. Full program of employees benefits. Apply by mail to: Southern Union Gas Company, Burt Building, Dallas, Texas. Attention: Mrs. Singer.**

**Management Consulting careers, to successful young accounting and marketing men interested in applying their training to the solution of top management business problems, we offer unique opportunities for professional and financial advancement. Our long established firm is a member of Association of Consulting Management Engineers. We seek men, 28 to 36, with good college records (advanced degrees desirable), with five or more years broad experience in one of these two areas: Accounting Control (management controls and reports, budgets, cost accounting and analysis, financial analysis), Marketing (product and market research, distribution methods, sales organization, sales analysis). About 50% travel from Chicago office (home week-ends). If you qualify, send complete resume including age, education, full details of experience, and earnings record. P-3553, Business Week.**

### Employment Service

**Executives—Contemplating a change? Your personal requirements met thru our flexible procedures, with full protection of your present position. We have the know-how and nationwide contacts to negotiate successfully for you. Write for details. Japan Executive Service, (Est. 1939), 1920 Porter Bldg., Kansas City, Mo.**

### Positions Wanted

**Mech. Engineer—32, Diversified experience, Design to manufacture. PW-2066, Business Week.**

**Engineer-Mech. 20 yrs. diversified experience design to mfg. Administrative, Managerial, Liaison. Gov't Contacts. PW-3834, Business Week.**

**Mech. Eng.—3 yrs. sbs. experience Milw. terr. Interested in sales opportunity. Technical item, salary or commission. PW-3872, Business Week.**

**Electrical Engineer age 36. 15 years design, specifications, surveys and estimates for all types of commercial, industrial and public buildings. Considerable design experience for air-fields, chemical and power plants. Impressive record of projects successfully completed. Capable assuming complete charge. Desires permanent position with AAA firm or will consider short term work on part time free-lance basis. Willing to relocate. FW-3792, Business Week.**

### Selling Opportunities Wanted

**Illinois sales coverage—Need additional quality lines or technical items, successful 10 year selling record, engineering graduate. RA-3646, Business Week.**

**Texas Industrial coverage—Established Manufacturer's Representative can handle two additional lines. RA-3829, Business Week.**

## A GOOD HABIT

is any habit which can benefit you. By watching for the "clues" section you will find employment opportunities—wanted,

vacant, selling—business opportunities of all types, special services and offerings and equipment offered and wanted.

Write for further information to: Clues Section, BUSINESS WEEK  
330 West 42nd St., New York 36, N. Y.

to blow away the fog that's directly below.

Each of the New Jersey towers will be 29 ft. high. The manufacturer says that the price varies, depending on the amount of electronic equipment that goes into a unit. New Jersey's cost around \$3,000 each.

• Source: Diesel Power Inc., Greenville, Pa.

## Fibrous Glass Plus

A new reinforced structural material with a fibrous glass base is being developed now at the U.S. Navy Bureau of Ordnance, Washington. It has already demonstrated its value for certain military applications, and is expected to have important commercial applications also. One example: tubing for the chemical and oil industries.

The new material is made in this way: Fibrous glass filaments are formed in refractory furnaces and pulled out at high speeds. As they emerge, they are coated with metallic and other inorganic substances. Metal coatings such as iron, nickel, molybdenum, aluminum, zinc, lead, tin, and copper have all been applied in Bu Ord experiments.

The coated fibers are then bonded and compacted to form tubular products and laminates. The difference between this material and others similar to it is this: Others bond with resins and organic materials, not with metallic and inorganic substances.

The result is a material that is suitable for higher temperatures. Also, it has an improved strength-weight ratio, and it is highly resistant to corrosion.

## NEW PRODUCTS BRIEFS

A new light-weight insulation for clothing was announced this week by the N. Erlanger Blumgart Co., 181 Madison Ave., New York. It is made of 100% virgin Dacron, can be dry cleaned or washed in a machine.

A grease that can be used for just about anything was announced last week by the Esso Research Center, Linden, N. J. Esso says it can be used in the car, home, farm, or shop, and that it can do a variety of jobs in automotive equipment that normally require several individual greases. It is stringy in structure, which is said to make it cling to parts even when they are in motion.

Diamond T Motor Car Co. showed off its new cab-over-engine diesel last week, claimed that it's the lightest tractor in the industry. That saves on fuel costs, lets you get extra payload capacity under common legal restrictions.



# ADVERTISERS IN THIS ISSUE

Business Week—September 11, 1954

<b>AIR EXPRESS DIV. OF RAILWAY EXPRESS AGENCY, INC.</b> ..... 24	<b>FIRST NATIONAL BANK OF ATLANTA</b> ..... 73	<b>NORDEN LABORATORIES CORP.</b> ..... 13
Agency—Robert W. Orr & Assoc., Inc.	Agency—Tucker Wayne & Co., Inc.	Agency—G. F. Sweet & Co., Inc.
<b>ALLEGHENY LUDLUM STEEL CORP.</b> ..... 40	<b>FLORIDA STATE ADVERTISING COMMISSION</b> ..... 52	<b>THE OHIO CRANKSHAFT CO.</b> ..... 151
Agency—Walker & Downing	Agency—Newman, Lynde & Assoc., Inc.	Agency—Carr Liggett Adv., Inc.
<b>ALLIS-CHALMERS MFG. CO.</b> ..... 43	<b>FORD INSTRUMENT CORP.</b> ..... 174	<b>OHIO FARMER</b> ..... 61
Agency—Compton Adv., Inc.	Agency—E. M. Basford Co.	Agency—The Buchen Co.
<b>AMERICAN CHAIN &amp; CABLE CO., INC.</b> ..... 112-113	<b>GEISS-AMERICA</b> ..... 172	<b>JOHN OSTER MFG. CO.</b> ..... 34
Agency—Reinecke, Meyer & Finn, Inc.	Agency—Al Paul Lefton Co., Inc.	Agency—Henri, Hurst & McDonald, Inc.
<b>AMERICAN FOREIGN INSURANCE ASSN.</b> ..... 167	<b>GENERAL DYNAMICS CORP.</b> ..... 137	<b>PACKAGE MACHINERY CO.</b> ..... 126
Agency—Prince & Co., Inc.	Agency—Gotham Adv. Co., Inc.	Agency—John O. Powers Co.
<b>AMERICAN HOIST &amp; DERRICK CO.</b> ..... 132	<b>GENERAL ELECTRIC CO. (CHEMICAL PROGRESS)</b> ..... 185	<b>PARSONS PAPER CO.</b> ..... 130
Agency—Ruthrauff & Ryan, Inc.	Agency—Benton & Bowles, Inc.	Agency—Wilson, Haight, Welch & Grover, Inc.
<b>AMERICAN TELEPHONE &amp; TELEGRAPH CO.</b> ..... 2	<b>GENERAL FIREPROOFING CO.</b> ..... 60	<b>PATERSON PARCHMENT PAPER CO.</b> ..... 166
Agency—N. W. Ayer & Son, Inc.	Agency—The Griswold Eshelman Co.	Agency—Platt, Zachary & Sutton, Inc.
<b>AMERICAN TRUCKING ASSOCIATION, INC.</b> ..... 118	<b>GERLINGER CARRIER CO.</b> ..... 92	<b>PERLESS PHOTO PRODUCTS, INC.</b> ..... 72
Agency—J. Walter Thompson Co.	Agency—Hal Short & Co., Inc.	Agency—John Mather Lupton Co., Inc.
<b>APSCO PRODUCTS, INC.</b> ..... 186	<b>B. F. GOODRICH CO. SPONGE PRODUCTS DIV.</b> ..... 178	<b>PERMACEL TAPE CORP.</b> ..... 177
Agency—Julian H. Besel Assoc.	Agency—Conklin Mann & Son	Agency—The Aitkin-Kynett Co.
<b>THE ARCO CO.</b> ..... 77	<b>GOODYEAR TIRE &amp; RUBBER CO., INC.</b> ..... 98-99	<b>PHOTOSTAT CORP.</b> ..... 86
Agency—The Hessemer Company	Agency—Kudner Agency, Inc.	Agency—Knight and Gilbert, Inc.
<b>ARMSTRONG CORK CO.</b> ..... 169	<b>GRAYBAR ELECTRIC CO.</b> ..... 189	<b>PITTSBURGH CORNING CORP.</b> ..... 135
Agency—Batten, Barton, Durstine & Osborn, Inc.	Agency—G. M. Basford Co.	Agency—Batten, Barton, Durstine & Osborn, Inc.
<b>BARBCKOCK &amp; WILCOX CO.</b> ..... 190	<b>GRINNELL CO., INC.</b> ..... 9	<b>POLAROID CORP.</b> ..... 84
Agency—Mills & Ruben, Inc.	Agency—Horton-Noyes Co.	Agency—Batten, Barton, Durstine & Osborn, Inc.
<b>BAKELITE CO., DIV. OF UNION CARBIDE &amp; CARBON CORP.</b> ..... 69	<b>HAMILTON MFG. CORP.</b> ..... 70	<b>THE WILLIAM POWELL CO.</b> ..... 143
Agency—J. M. Mathes, Inc.	Agency—Ruthrauff & Ryan, Inc.	Agency—The Ralph H. Jones Co.
<b>BALTIMORE &amp; OHIO RAILROAD</b> ..... 183	<b>HAMILTON WATCH COMPANY</b> ..... 19	<b>THE PURE OIL CO.</b> ..... 15
Agency—The Richard A. Foley Adv. Agency, Inc.	Agency—Beaumont, Heller & Sperling, Inc.	Agency—Leo Burnett Co., Inc.
<b>BANKERS TRUST CO.</b> ..... 1	<b>HAMMERMILL PAPER CO.</b> ..... 148	<b>RADIO CORPORATION OF AMERICA</b> ..... 81
Agency—Cowan & Dengler, Inc.	Agency—Batten, Barton, Durstine & Osborn, Inc.	Agency—Al Paul Lefton Co., Inc.
<b>BARILUM STEEL CORP.</b> ..... 127	<b>HEINEMANN ELECTRIC CO.</b> ..... 152	<b>THE RAYMOND BAG CO.</b> ..... 66
Agency—James Thomas Shuring Co., Inc.	Agency—Thomas R. Sundheim	Agency—Doe-Anderson Adv.
<b>BENDIX AVIATION CORP.</b> ..... 4-5	<b>HERCULES POWDER CO.</b> ..... 16	<b>RECORDAK CORP. (SUB. OF EASTMAN KODAK)</b> ..... 129
Agency—Blackman, John & Adams, Inc.	Agency—Fuller & Smith & Ross, Inc.	Agency—J. Walter Thompson Co.
<b>BETHELEM STEEL CO.</b> ..... 191	<b>THE HEYER CORP.</b> ..... 162	<b>REES PULLEY CO.</b> ..... 136
Agency—Jones & Brakeley, Inc.	Agency—Frank C. Jones, Inc.	Agency—Caldwell, Larkin & Co., Inc.
<b>BIGELOW SANFORD CARPET CO.</b> ..... 149	<b>THE FRANK G. HOUGH CO.</b> ..... 142	<b>REMINGTON ARMS CO.</b> ..... 84
Agency—Young & Rubicam, Inc.	Agency—Ervin R. Abramson	Agency—Batten, Barton, Durstine & Osborn, Inc.
<b>BITUMINOUS COAL INSTITUTE</b> ..... 83	<b>IDEO DIV., DRESSER-STACEY CO.</b> ..... 49	<b>REMINGTON RAND, INC.</b> ..... 103
Agency—Benton & Bowles, Inc.	Agency—Harry M. Miller, Inc.	Agency—Leeford Adv. Agency, Inc.
<b>BOWER ROLLING BEARING CO.</b> ..... 2nd Cover	<b>INDUSTRIAL BROWNHOUS CORP.</b> ..... 176	<b>REPUBLIC STEEL CORP.</b> ..... 106-107
Agency—MacManus, John & Adams, Inc.	Agency—Frank Kierman & Co.	Agency—Meldrum & Fewsmith, Inc.
<b>CHARLES BRUNING CO., INC.</b> ..... 109	<b>INDUSTRIAL CRANE &amp; HOIST CORP.</b> ..... 76	<b>REVERE COPPER &amp; BRASS, INC.</b> ..... 87
Agency—H. W. Kastor & Sons Adv. Co., Inc.	Agency—Vernon S. Weller Adv.	Agency—St. Georges & Keyes, Inc.
<b>THE BUDD CO.</b> ..... 39	<b>INDUSTRIAL SOUND CONTROL, INC.</b> ..... 90	<b>ROHM &amp; HAAS CO. (PLASTICS DIV.)</b> ..... 138-139
Agency—Lewis & Gilman, Inc.	<b>INSURANCE CO. OF NORTH AMERICA</b> ..... 95	Agency—Arndt, Preston, Chapin, Lamb & Keen, Inc.
<b>BULLARD CO.</b> ..... 20	Agency—N. W. Ayer & Son, Inc.	<b>ROYAL METAL MFG. CO.</b> ..... 146
Agency—Park City Adv. Agency, Inc.	<b>INTERNATIONAL RAILWAY CAR CO.</b> ..... 148	Agency—Kuttner & Kuttner
<b>BUNDY TUBING CO.</b> ..... 117	Agency—Bowman & Block, Inc.	<b>JOSEPH T. RYERSON &amp; SON, INC.</b> ..... 33
Agency—Brooke, Smith, French & Dorrance, Inc.	<b>INTERNATIONAL TELEPHONE &amp; TELEGRAPH CORP.</b> ..... 81	Agency—Calkins & Holden, Inc.
<b>BUTLER MANUFACTURING CO.</b> ..... 168	Agency—J. M. Mathes, Inc.	<b>SIER-BATH GEAR &amp; PUMP CO., INC.</b> ..... 184
Agency—Aubrey, Finlay, Marley & Hodgson, Inc.	<b>JENKINS BROS.</b> ..... 36	Agency—Thomas & Gill
<b>J. B. CARROLL &amp; CO.</b> ..... 84	Agency—Horton-Noyes Co.	<b>SMITH-CORONA, INC.</b> ..... 128
Agency—Merchandising Advertisers, Inc.	<b>JOHNS-MANVILLE CORP.</b> ..... 11	Agency—Cunningham & Walsh, Inc.
<b>CENTRAL NATIONAL BANK</b> ..... 102	Agency—J. Walter Thompson Co.	<b>SOCIETY OF INDUSTRIAL PACKAGING &amp; MATERIALS HANDLING ENGINEERS</b> ..... 72
Agency—Fuller & Smith & Ross, Inc.	<b>C. WALKER JONES CO.</b> ..... 128	Agency—Armstrong Adv. Agency
<b>CENTRAL OF GEORGIA RAILWAY</b> ..... 133	Agency—Gray & Rogers Adv.	<b>SOCONY-VACUUM OIL CO., INC.</b> ..... 3rd Cover
Agency—Tucker Wayne & Co., Inc.	<b>KOHLER CO.</b> ..... 141	Agency—Compton Adv. Co., Inc.
<b>CHASE NATIONAL BANK, INC.</b> ..... 115	Agency—Roche, Williams & Cleary, Inc.	<b>SPERRY GYROSCOPE CO.</b> ..... 105
Agency—Kenyon & Eckhardt, Inc.	<b>KOPPERS CO., INC., CHEMICAL DIV.</b> ..... 153	Agency—Reach, Yates & Mattoon, Inc.
<b>CHICAGO &amp; EASTERN ILLINOIS R. R.</b> ..... 125	Agency—Batten, Barton, Durstine & Osborn, Inc.	<b>STATE OF COLORADO</b> ..... 142
Agency—Fulmer & Smith & Ross, Inc.	<b>LACKAWANNA RAILROAD CO.</b> ..... 173	Agency—Axelson Adv. Agency
<b>CHRYSLER CORP. (DOODGE DIV.)</b> ..... 85	Agency—Joseph Katz Co.	<b>SYLVANIA ELECTRIC PRODUCTS, INC.</b> ..... 154
Agency—Ross Roy, Inc.	<b>THE LAMB ELECTRIC CO.</b> ..... 10	Agency—Ceell & Freabrey, Inc.
<b>CITY OF LONG BEACH</b> ..... 56	Agency—The Jones Co.	<b>SYNTHANE CORP.</b> ..... 46-47
Agency—Patch & Curtis Adv. Agency, Inc.	<b>SAMUEL M. LANGSTON CO.</b> ..... 93	Agency—Arndt, Preston, Chapin, Lamb & Keen, Inc.
<b>CLUES (CLASSIFIED ADVERTISING)</b> ..... 194	Agency—Gray & Rogers	<b>TENNESSEE INDUSTRIAL &amp; AGRICULTURAL DEV. COMMISSION</b> ..... 42
<b>COLD METAL PRODUCTS CO.</b> ..... 76	<b>LAYNE &amp; BOWLER, INC.</b> ..... 170	Agency—Coggins Adv. Agency
Agency—H. M. Klingensmith Co. Adv. Inc.	Agency—Boeppelman & Steinko, Inc.	<b>TINKEN ROLLER BEARING CO.</b> ..... 4th Cover
<b>COLSON CORP.</b> ..... 1	<b>LEES-BRADNOR CO.</b> ..... 96	Agency—Batten, Barton, Durstine & Osborn, Inc.
Agency—Carr Liggett Adv., Inc.	Agency—Belden & Hickox	<b>THE TODD CO.</b> ..... 122
<b>COLUMBIAN ART WORKS, INC.</b> ..... 55	<b>LINK-BELT CO.</b> ..... 181	Agency—The Merrill Anderson Co., Inc.
Agency—The Grand-Abasselt Co.	Agency—Klau-Van Pietersen-Dunlap, Inc.	<b>THE TORRINGTON CO.</b> ..... 171
<b>COMMITTEE OF 100 OF MISHAWAKA &amp; SOUTH BEND</b> ..... 8	<b>LOEW'S, INC.</b> ..... 72	Agency—Harvard Adv. Co.
Agency—Lampert, Fox, Prell & Dolk, Inc.	Agency—Doremus & Co.	<b>TOWSEND CO.</b> ..... 64-65
<b>CROWN CORK &amp; SEAL CO., INC., CROWN CAN DIV.</b> ..... 131	<b>LORD &amp; BURNHAM</b> ..... 192	Agency—Bond & Starr, Inc.
Agency—The Clements Co.	Agency—Hisco Adv. Agency	<b>THE TRANE CO.</b> ..... 74-75
<b>CRUCIBLE STEEL CO. OF AMERICA</b> ..... 53	<b>P. R. MALLORY &amp; CO., INC.</b> ..... 157	Agency—Campbell-Mithun, Inc.
Agency—G. M. Basford Co.	Agency—The Aitkin-Kynett Co.	<b>TRANS WORLD AIRLINES, INC.</b> ..... 68
<b>DAYTON ROGERS MFG. CO.</b> ..... 44	<b>MARCHANT CALCULATORS, INC.</b> ..... 97	Agency—Batten, Barton, Durstine & Osborn, Inc.
Agency—Vance Pidgeon & Assoc., Inc.	Agency—Doremus & Co., Ltd.	<b>TRAVELERS INSURANCE CO.</b> ..... 88
<b>DEARBORN CHEMICAL CO.</b> ..... 175	<b>THE MARLEY CO.</b> ..... 124	Agency—Young & Rubicam, Inc.
Agency—The Buchen Co.	Agency—Valentine-Hadford Adv.	<b>UNDERWOOD CORP.</b> ..... 119
<b>DEWEY &amp; ALMY CHEMICAL CO.</b> ..... 161	<b>MARSHALL STEEL CO.</b> ..... 102	Agency—Marshalk & Pratt Co., Inc.
Agency—Horton-Noyes Co.	Agency—Edgar Walter Fischer Adv.	<b>UNION PACIFIC RAILROAD</b> ..... 108
<b>DOUGLAS-GUARDIAN WAREHOUSE CORP.</b> ..... 163	<b>MECHANICAL HANDLING SYSTEMS, INC.</b> ..... 82	Agency—The Caples Co.
Agency—Merrill Anderson Co., Inc.	Agency—The Fred M. Randall Co.	<b>VICTOR CHEMICAL WORKS</b> ..... 45
<b>DOW CHEMICAL CO.</b> ..... 193	<b>MEILINK STEEL SAFE CO.</b> ..... 162	Agency—Russell M. Seeds Company
Agency—MacManus, John & Adams, Inc.	<b>MERCK &amp; CO., INC.</b> ..... 57	<b>VIKING PUMP CO.</b> ..... 92
<b>DUREZ PLASTICS &amp; CHEMICALS, INC.</b> ..... 145	Agency—Charles W. Hoyt Co., Inc.	Agency—J. M. Hixson, Inc.
Agency—Constock & Co.	<b>MILFORD RIVET &amp; MACHINE CO.</b> ..... 23	<b>THE WAYNE PUMP CO.</b> ..... 114
<b>DYKEN MFG. CO.</b> ..... 186	Agency—Edward Grauman & Assoc.	Agency—A. E. Aldridge Assoc.
Agency—Cramer-Krasselt Co.	<b>MINNESOTA MINING &amp; MFG. CO.</b> ..... 187	<b>WESTERN MARYLAND RAILWAY CO.</b> ..... 140
<b>EASTERN CORP.</b> ..... 88	Agency—Batten, Barton, Durstine & Osborn, Inc.	Agency—Marshalk & Pratt Co.
Agency—Ruthrauff & Ryan, Inc.	<b>MOORE BUSINESS FORMS, INC.</b> ..... 100	<b>WESTERN UNION TELEGRAPH CO.</b> ..... 6-7
<b>THE EMOLOID CO.</b> ..... 157	Agency—N. W. Ayer & Son, Inc.	Agency—Albert Frank-Guenther Law, Inc.
Agency—James A. Wapshare Co.	<b>MOSLER SAFE CO.</b> ..... 155	<b>WESTINGHOUSE AIR BRAKE CO.</b> ..... 58-59
<b>EMERSON ELECTRIC MFG. CO.</b> ..... 91	Agency—Stockton-West-Burkhart, Inc.	Agency—Batten, Barton, Durstine & Osborn, Inc.
Agency—Winiaus-Brandon Co.	<b>NATIONAL BLANK BOOK CO.</b> ..... 118	<b>WESTINGHOUSE ELECTRIC CORP.</b> ..... 150
<b>EMPLOYERS MUTUAL LIABILITY INS. CO. OF WAUSAU</b> ..... 14	Agency—Sutherland-Abbott	Agency—N. W. Ayer & Son, Inc.
Agency—J. Walter Thompson Co.	<b>NATIONAL CITY BANK OF NEW YORK</b> ..... 158	<b>WHEELER INSULATED WIRE CO.</b> ..... 84
<b>ENJAY CO., INC.</b> ..... 3	Agency—Batten, Barton, Durstine & Osborn, Inc.	Agency—Robotham & Peck, Inc.
Agency—Michaelson & Co., Inc.	<b>NATIONAL DISTILLERS PRODUCTS CORP.</b> ..... 35	<b>WHEEL TRUING TOOL CO.</b> ..... 48
<b>EQUITABLE LIFE ASSURANCE SOCIETY OF THE U. S.</b> ..... 123	Agency—Doremus & Co.	Agency—Clark & Roberts, Inc.
Agency—Kenyon & Eckhardt, Inc.	<b>NATIONAL MALLEABLE &amp; STEEL CASTINGS CO.</b> ..... 12	<b>WOLVERINE TUBE, DIV. CALUMET &amp; HECLA, INC.</b> ..... 172
<b>ERIE RAILROAD CO.</b> ..... 156	Agency—Palto Patterson, Inc.	Agency—Charles M. Gray & Assoc.
Agency—The Griswold Eshelman Co.	<b>NATIONAL MOTOR BEARING CO., INC.</b> ..... 147	<b>ZURICH GENERAL ACCIDENT &amp; LIABILITY INSURANCE COMPANY</b> ..... 152
<b>THE EVENING &amp; SUNDAY BULLETIN</b> ..... 71	Agency—L. C. Cole Co.	Agency—Vaughan, Thain & Spencer, Inc.
Agency—N. W. Ayer & Son, Inc.	<b>NATIONAL STARCH PRODUCTS, INC.</b> ..... 121	
<b>FIELD AND CO.</b> ..... 192	Agency—The J. C. Cole Co.	
Agency—Bachenheimer-Lewis, Inc.	<b>NATIONAL TRUCK LEASING SYSTEM</b> ..... 72	
	Agency—W. S. Kirkland	
	<b>N. Y. STATE COMMERCE</b> ..... 89	
	Agency—Batten, Barton, Durstine & Osborn, Inc.	

# The End of EDC

There is tragic irony in the fact that France, the country that gave birth to the idea of the European Defense Community, should be the country which dealt that plan for European unity its death blow.

One cannot escape a sense of history repeating itself. In the aftermath of World War I, it was France especially—although the other allies were not guiltless—that failed to give adequate support to those elements in Germany who sought to lead that warlike nation along the paths of democracy and of peaceful cooperation with its neighbors.

When the rising tide of German nationalism under Hitler brought with it the German Wehrmacht and the remilitarization of the Rhineland, neither France nor any other nation was prepared to intervene. Now a majority of the French Chamber of Deputies, to the great joy of the Kremlin, has dealt a grievous blow to Chancellor Adenauer and to all of those elements in Western Germany who want to channel Germany's reviving strength and energies toward European unity, and to link Germany's inevitable rearmament into a common European defense effort.

Not without reason did the Communist members of the Chamber of Deputies, who were allowed to decide the vote, shout and stamp and sing the Internationale. They have won a many-headed victory—over the United States, over the cause of European unity, and over the democratic forces in Germany.

German rearmament cannot be stopped. One has only to witness the explosive rebirth of German industrial strength, and to sense the tremendous drive and energy that exists today in Western Germany to understand this.

The time will come when Western Germany will rearm, whether encouraged by the United States or not, and once again neither France nor any other Western country will mobilize a single soldier to stop her.

The issue upon which the French Chamber held its disorderly vote was not whether Germany should rearm; it was whether a German army should take its place as a part of a joint European Defense force sponsored by nations united in their desire to defend freedom against the threat of Communist aggression. Whether or not they understood it, the French deputies were voting to let German rearmament take place under the sponsorship of resurgent German nationalism. They were voting to create a situation in which Western Germany will have practical reasons for making a deal with Soviet Russia. Russia can now hold out to Western Germany the prize of unification with Eastern Germany. Having been rebuffed in their willingness to join forces with their ancient antagonists, the French, in a common front against Communism, the Germans will have an alibi for looking for cooperation in the opposite direction.

Things have not yet reached this pass in Germany. But they well might unless France, on second thought, looks to its true interests and works with the United

States, Britain, and West Germany to salvage as much as possible from the wreckage of EDC.

## Too Much Saving?

Whenever business slows down, a lot of businessmen begin to think people are saving too much—and not spending enough. Economists have one word "oversaving" to describe this process that can lead to depression.

As the economists figure it, savings pile up faster than they can be invested. That leads to idle plants and unemployed people—can start the economy spiraling downward. So they're always checking to see if there are enough investment possibilities—new plants, new houses, new roads—to keep savings money working.

It has seemed silly to raise the question ever since the war. Instead of surplus of investment funds, there's been something like a shortage much of the time.

Now the question doesn't seem so silly. In the years ahead, it may be a real worry. So says Charles L. Dearing of the Brookings Institution in a carefully documented study called *Industrial Pensions* (Brookings Institution, \$3.75). It deals with the outlook for the whole range of savings and investment between now and 1960.

Dearing's findings are clear: There's likely to be a lot of idle money around—more than we can afford if we want full employment—if pension funds and other kinds of savings continue to trend upward.

As Dearing sees it, pension funds will continue to grow until by 1960 they will have \$6-billion a year to invest. Other kinds of savings, both by companies and persons, could well bring the total up to \$50-billion.

But—with the pattern of investment we have now—there may not be productive uses for that much money. Dearing figures that even if industry's capital program stays high, home-building holds up, and we keep construction going at a good rate, there may be as much as \$5-billion of savings that won't be put to work.

So the danger of oversaving is real.

But it need not mean that the U. S. is heading into stagnation. There is a wealth of possibilities for new kinds of investment. There are toll-roads and other self-liquidating public works. There's private development of atomic energy and urban redevelopment. There may well be more private investment abroad.

The real point of Dearing's study, we think, is this: We'll need to do a lot of thinking on how these funds are to be invested. For the money that will be piling up will be private money—not public.

It would be simple to give the whole problem to the federal government by turning all pension funds over to the social security system. But we're sure that neither the business community nor the Eisenhower Administration would want any part of that.

Clearly, if oversaving is a problem, it's one that the business community must find ways to solve. We're sure that the challenge can be met.



**How**  
**Correct Lubrication**  
**cured it — and saved**  
**\$10,000 a year!**



**SOCONY-VACUUM** *Correct Lubrication*  
**FIRST STEP IN CUTTING COSTS**

SOCONY-VACUUM OIL CO., INC., and Affiliates: MAGNOLIA PETROLEUM CO., GENERAL PETROLEUM CORP.

Stretched taut between two endless tenter chains, the broad band of felt revolved slowly through the long, cavernous dryer. This was premium, snow-white felt, handled with special care to prevent staining. But repeatedly, despite all precautions, the felt emerged dotted with ugly dark spots.

For many years, these spots had plagued a large felt plant. They knew the cause...grease and oil, used on chains and rollers, melted under dryer heat of 240°F. and dripped down on the felt. All attempts at a cure had failed. Production loss was \$10,000 annually!

Socony-Vacuum men, making an analysis of plant machinery, tackled this problem at once. After careful study they recommended special Gargoyle lubricants, set up proper lubrication schedules, trained plant personnel in new application methods. Today, at an annual cost of \$30 for dryer lubricants, the company is saving the \$10,000 it previously lost!

This entire plant is now protected by a program of Correct Lubrication that has improved production and cut costs in every department. Why not see what such a program can do for you?

s much

essmen  
 nd not  
 oversav-  
 pression.  
 er than  
 ts and  
 spiraling  
 f there  
 s, new  
 king.  
 nce the  
 there's

e years  
 Dearing  
 mented  
 titution,  
 ange of

e a lot  
 if we  
 r kinds

nue to  
 year to  
 ies and  
 lion.  
 now—  
 money.  
 program  
 ep con-  
 uch as

g into  
 or new  
 er self-  
 pment  
 re may

is this:  
 funds  
 piling

to the  
 ls over  
 neither  
 lminis-

at the  
 We're



## Steel that saves two days time two miles down

**A**t the bottom of an oil well, valves are used to regulate the injection of gas under pressure that forces the oil to the surface. When the valves wear out, oilmen have to haul up a mile or two of pipe—unless they're using the valve housing shown below. Its valves can be changed from topside by lowering special tools down the tubing on a wire line. The

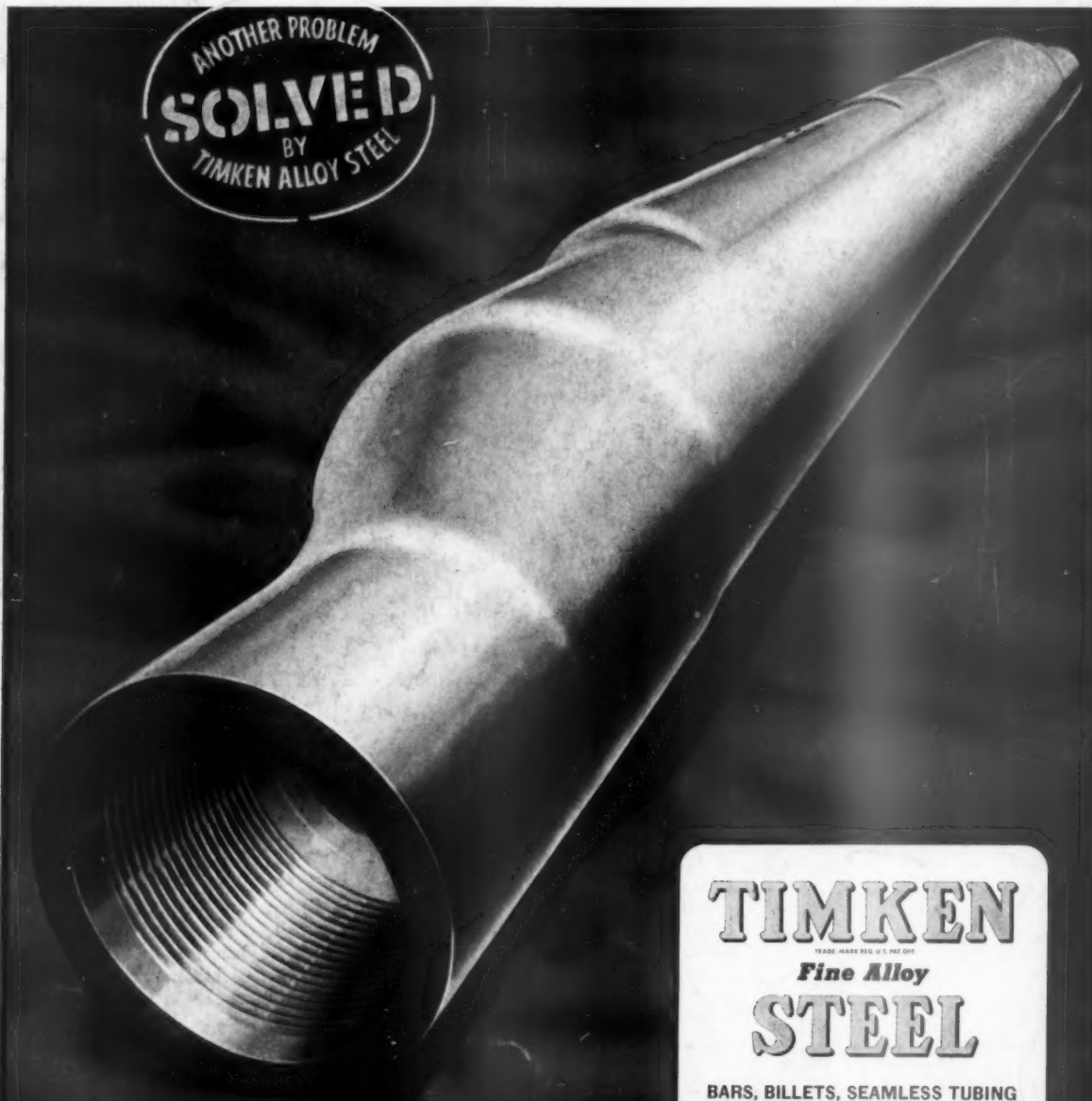
oilmen save two days time—often more—and several thousand dollars.

But the housings must withstand 6000 pounds per square inch and making them strong enough was a problem. The manufacturer tried ordinary steels but 10% of the housings failed under inspection test. Others cracked during heat treat.

The problem was presented to Timken

Company metallurgists. Their recommendation: a certain analysis of Timken® alloy steel tubing. It had the strength and weldability needed, plus uniform response to heat treatment. The manufacturer switched to the Timken seamless steel tubing; production soared, while costs and rejections were greatly reduced.

Hundreds of problems like this have been stamped "Solved—by Timken alloy steel". Do you have a special steel problem? Write: The Timken Roller Bearing Company, Steel and Tube Division, Canton 6, Ohio. Cable address: "TIMROSCO". Tapered Roller Bearings, Alloy Steel and Tubing, Removable Rock Bits.



**ANOTHER PROBLEM  
SOLVED  
BY  
TIMKEN ALLOY STEEL**

**TIMKEN**  
TRADE MARK REG. U.S. PAT. OFF.  
**Fine Alloy  
STEEL**

**BARS, BILLETS, SEAMLESS TUBING  
AND GRAPHITIC TOOL STEELS**